SONY

3-750-054-42 (2)

Trinitron® Color TV

KV-27XBR10
KV-32XBR10
KV-27XBR15
KV-32XBR15
KV-27XBR50
KV-32XBR50
KV-27XBR60
KV-27XBR65
KV-32XBR65
KV-32XBR70

Operating Instructions

Before operating the unit, please read this manual thoroughly and retain it for future reference.

Owner's Record

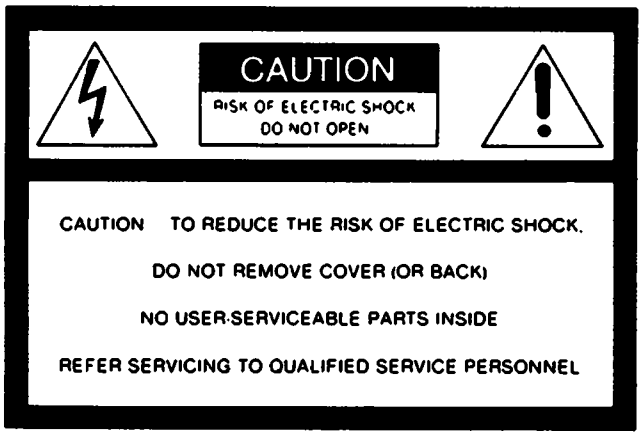
The model and serial numbers are located at the rear of the unit. Record these numbers in the spaces provided below. Refer to them whenever you call upon your Sony dealer regarding this product.

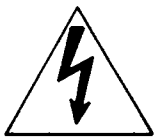
Model No._____ Serial No._____

©1990 by Sony Corporation

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION TO REDUCE THE RISK OF ELECTRIC SHOCK.
DO NOT REMOVE COVER (OR BACK)
NO USER-SERVICEABLE PARTS INSIDE
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

CAUTION:

TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

Note to CATV system installer in the U.S.A.
This reminder is provided to call the CATV system installer's atteniton to Article 820-22 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

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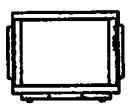
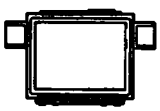
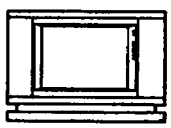
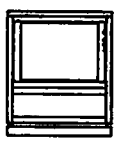
Identify Your TV Before Use

In this manual, the instructions are given using the model with maximum functions. Please disregard information in the manual which does not apply to your TV.

First of all, please check the model number of your TV set.
This manual applies to several models and there are slight differences among them. Please check the table below to see what is equipped with your TV before you begin the operation.

Table for each model **YES: equipped** **NO: not equipped**

	27/32XBR10	27/32XBR15	27/32XBR50	27XBR60	27/32XBR65	32XBR70
Shape						
Picture-in-picture function	NO	YES	NO	NO	YES	NO
Active Signal Correction	NO	NO	YES	NO	NO	NO
Super woofer	NO	NO	YES	NO	NO	NO
The number of S video input jacks	1	3	3	1	1	1
EXTERNAL SPEAKER or SPEAKER OUT terminals	NO	YES	YES	NO	NO	NO
Supplied Remote Commander	RM-762A	RM-761A	RM-786 and RM-K1T	RM-762A	RM-761A	RM-762A

Features

This color TV features a Microblack™ TRINITRON picture tube for a high resolution, high contrast picture.

- **Picture-in-picture feature** lets you watch more than one channel at once. TV channel or a video source can be displayed in a box inset into the corner of the main screen.
  (Only for KV-27XBR15, 32XBR15, 27XBR65, 32XBR65)
- **Sound Retrieval System (SRS®)*** enhances the natural sound of a stereo source. (It is also effective for monaural source for KV-27XBR50, 32XBR50.)
- **Multi-band VHF/UHF/CATV tuner** receives up to 125 cable channels for a total of 181 possible off-air and cable channels.
- **Built-in MTS (Multichannel TV Sound) decoder** enables reception of stereo programs and Second Audio Program (SAP) broadcasts.
- **S VIDEO IN** jack which is connected to the S video output jack on the VCR allows superior playback pictures.
- **Variable audio output jacks** enable reproduction of TV or video sound through an audio system.
- **Monitor output jacks** allow VTR recording of the picture and sound being monitored on the TV.
- **3D (Three Dimensional) sound system** enables three-dimensional sound reproduction using two main speakers and one super woofer.
  (Only for KV-27XBR50, 32XBR50)
- **ASC (Active Signal Correction)** provides signal correction for entire picture on the screen through Sony's advanced technology.
  (Only for KV-27XBR50, 32XBR50)

* Sound Retrieval System (SRS) reproduces the ambience and dynamics of the original live performance so that you can enjoy the sound as if you were at the concert hall or in the recording studio. SRS enables you to enjoy the optimum sound from anywhere in the room.

(●) SOUND RETRIEVAL SYSTEM

The (●) Sound Retrieval System is manufactured by Sony Corporation under license from the Hughes Aircraft Company, a subsidiary of GM Hughes Electronics. It is covered by U.S. Patent No. 4, 748, 669. Other U.S. and foreign patents pending.

(●), Sound Retrieval System and SRS® are trademarks of the Hughes Aircraft Company, a subsidiary of GM Hughes Electronics.

Supplied Remote Commander provides you with many other convenient features.

- **The programmable Remote Commander** allows you to operate video equipment made by Sony or other manufacturers.
- **Guide function** allows you to set the clock, timer, channel block, video label, and channel caption while reading the instructions of the on-screen guide.
- **Automatic programming** to preset all receivable channels instantly.
- **JUMP** button enables switching quickly between two channels.
- **FREEZE** button (one of the picture-in-picture feature) allows you to freeze a TV picture.
- **Sleep timer** automatically turns off the TV after approximately one hour.
- **ANT/AUX button** permits one-touch selection of pay cable TV channels when a converter is connected.
- **Internal clock** for the current time display

And other features for a high quality picture...

- **New Dynamic picture™ system** adjusts picture contrast automatically to produce more detail in both bright and dark areas of every scene.
- **Colorpure Filter™** produces fine picture detail without color spill or color noise.
- **VM (Velocity Modulation) circuitry** produces clean and sharp black and white contrasts. (Only for KV-32XBR10, KV-32XBR15, KV-32XBR50, KV-32XBR65, KV-32XBR70)
- **Dynamic Focus™ circuitry** automatically focuses the scanning electron beam for enhanced sharpness over the entire picture, especially in the corners. (Only for KV-32XBR10, KV-32XBR15, KV-32XBR50, KV-32XBR65, KV-32XBR70)
- **Trinitone™ control** allows you to adjust the color temperature (tint) of the picture for the most pleasing color.

Precautions

[illegible]

- Operate the unit only on 120 V AC.
- One blade of the plug is wider than the other for purpose of safety and will fit into the power outlet only one way. If you are unable to insert the plug fully into the outlet, contact your dealer.
- Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.
- Unplug the unit from the wall outlet if it is not going to be used for several days or more. To disconnect the cord, pull it out by the plug. Never pull the cord itself.

[illegible]

- To prevent internal heat build-up, do not block the ventilation openings.
- Do not install the unit in a hot or humid place or in a place subject to excessive dust or mechanical vibration.

[illegible]

Clean the unit with a slightly damp soft cloth. Use a mild household detergent. Never use strong solvents such as thinner or benzine as they might damage the finish of the cabinet.

[illegible]

Retain the original carton and packing materials for safe transport of this unit in the future.

Use of this television receiver for other than private viewing of programs broadcast on UHF or VHF or transmitted by cable companies for the use of the general public may require authorization from the broadcaster/cable company and/or program owner.

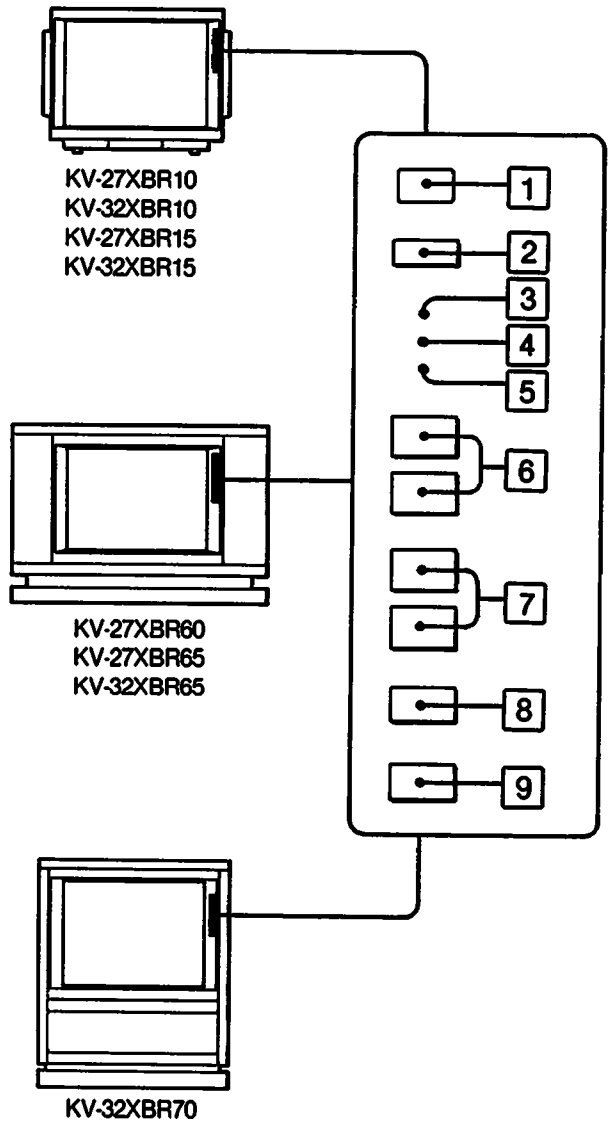
If you have any questions or problems concerning your unit, please contact your nearest Sony dealer.

For details safety precautions, see the leaflet "IMPORTANT SAFEGUARDS".

Location of Controls

Refer to the pages indicated in ● for details.

Front



[1] **Remote control detector**

[2] **POWER switch** ●

[3] **SLEEP indicator** ●

[4] **STEREO indicator** ●

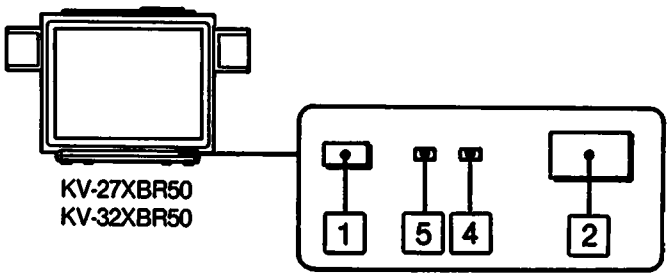
[5] **TIMER indicator** ●

[6] **CHANNEL scan buttons** ●

[7] **VOLUME buttons** ●

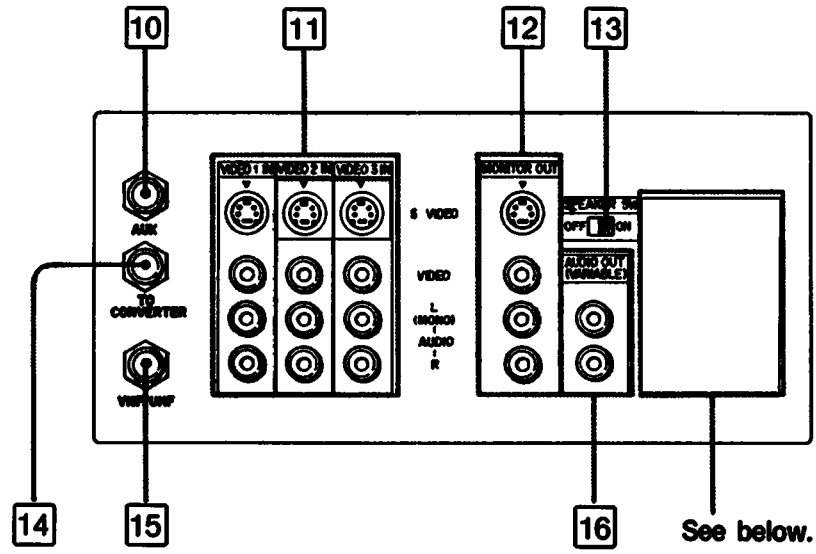
[8] **TV/VIDEO button** ●

[9] Only for KV-27XBR10/32XBR10/27XBR60/32XBR70
SRS (Sound Retrieval System) button ●
Only for KV-27XBR15/32XBR15/27XBR65/32XBR65
MULTI PICTURE button ●



KV-27XBR50/32XBR50 have only the POWER switch on the TV.

Rear



10 **AUX (auxiliary) terminal** ●

11 **VIDEO 1, 2, 3 IN jacks** ●

12 **MONITOR OUT jacks** ●

13 **SPEAKER SW (switch)** ●

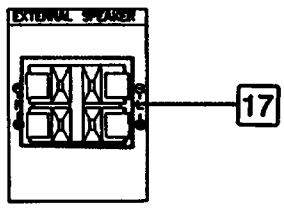
14 **TO CONVERTER terminal** ●

15 **VHF/UHF antenna terminal** ●

16 **AUDIO OUT (VARIABLE) jacks** ●

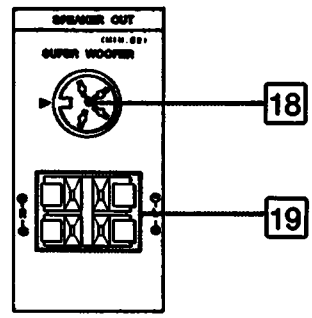
The whitened parts are only for KV-32XBR15, KV-27XBR15, KV-32XBR50 and KV-27XBR50.

Only for KV-27XBR15/32XBR15



17 **EXTERNAL SPEAKER terminals** ●

Only for KV-27XBR50/32XBR50

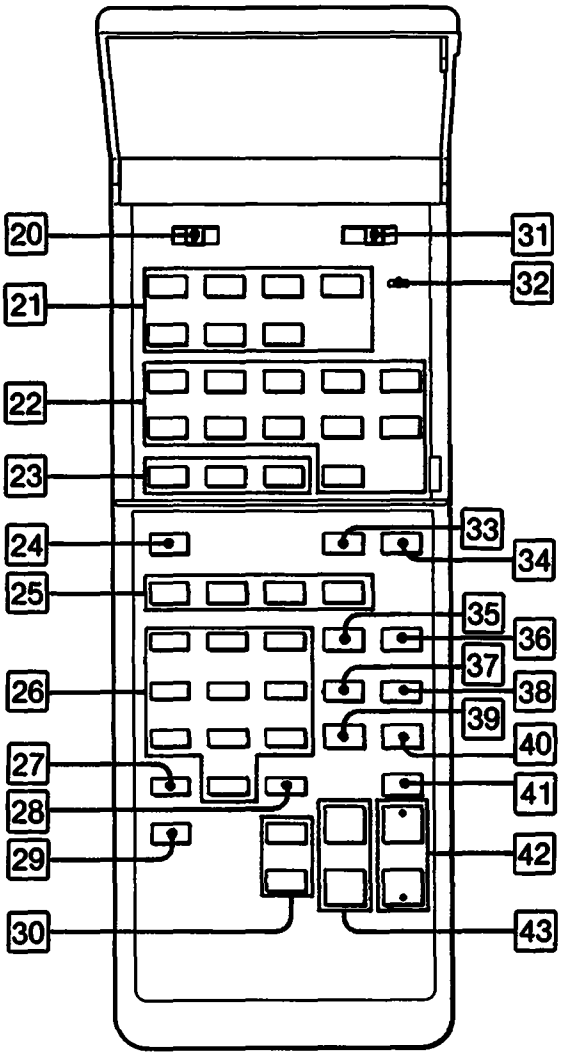


18 **SUPER WOOFER jack** ●

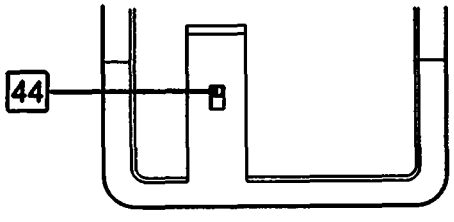
19 **SPEAKER OUT terminals (for main speakers)** ●

Programmable Commander

Refer to the pages indicated in ● for details.



Rear



20 Only for KV-27XBR15/32XBR15/27XBR65/32XBR65
PIP/VIDEO/CABLE selector ● ●
Only for KV-27XBR10/32XBR10/27XBR50/32XBR50/27XBR60/32XBR70
VIDEO/CABLE selector ●

21 **AV WINDOW buttons** ●

22 Only for KV-27XBR15/32XBR15/27XBR65/32XBR65
Buttons for picture-in-picture and Sony video equipment ● ●
Only for KV-27XBR10/32XBR10/27XBR50/32XBR50/27XBR60/32XBR70
Buttons used for Sony video equipment ●

23 **Channel presetting buttons** ● ●

24 **MUTING button** ●

25 **Input select buttons*** (TV, VIDEO 1, VIDEO 2, VIDEO 3) ●

26 **Channel number buttons** ●

27 **DISPLAY button** ●

28 **ENTER button** ●

29 **TIME button** ●

30 **PICTURE buttons** ●

31 **VTR 1/2/3/MDP selector** ●

32 **LEARN indicator** ●

33 **SLEEP button** ●

34 **POWER button*** ●

35 **CABLE button** ●

36 **ANT/AUX button** ●

37 Only for KV-27XBR50/32XBR50
WOOFER button ●

38 Only for KV-27XBR50/32XBR50
ASC button ●

39 **SRS (Sound Retrieval System) button*** ●

40 **MTS (Multichannel TV Sound) button** ●

41 **JUMP button** ●

42 **CH (channel) scan buttons*** ●

43 **VOL (volume) buttons*** ●

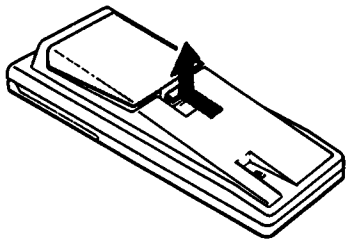
44 **USE/LEARN selector** ●

*These buttons are also on the TV.
(Models equipped with picture-in-picture function do not have an SRS button on the TV).

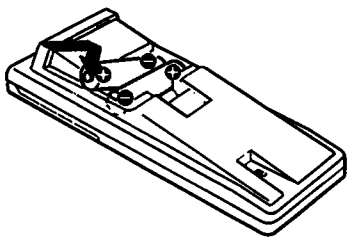
Preparing the Remote Commander

Battery Installation

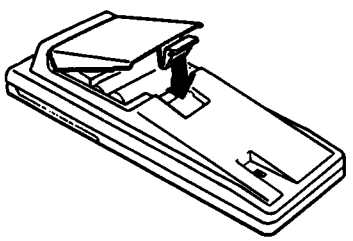
1 Push to open the lid.



2 Install two size AA (R6) batteries with the correct polarity.



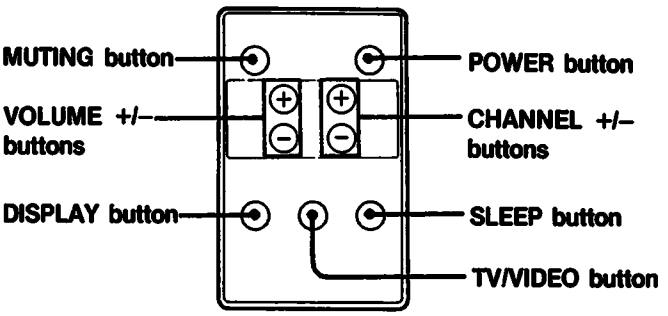
3 Replace the lid.



- In normal operation, batteries will last up to half a year. If the unit does not operate properly, the batteries might be exhausted. Replace all of them with new ones.
- To avoid damage from possible battery leakage, remove the batteries when the Remote Commander will not be used for a long time.

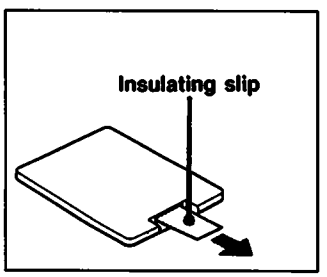
The Mini Commander is supplied only for KV-27XBR50 and KV-32XBR50.

Mini Commander RM-K1T



This Mini Commander has the minimum function buttons for watching the TV.

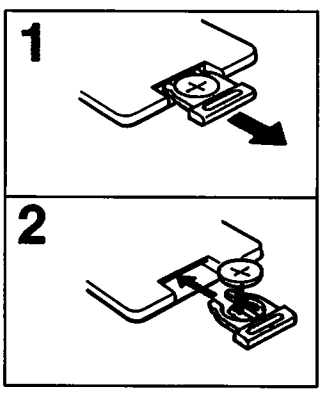
Before use
The initial battery is installed at the factory. Remove the transparent insulating slip before operation.



How to replace the battery

1 Pull out the battery case.

2 Insert a Sony CR2025 battery with the flat surface (positive side) upward.



Use of a battery other than the Sony CR2025 lithium battery may create a risk of fire or explosion.

Notes on the lithium battery

- Keep the lithium battery out of the reach of children. Should the battery be swallowed, immediately consult a doctor.
- Be sure to observe the correct polarity when installing the battery.
- Do not hold the battery with metallic tweezers, otherwise a short-circuit may occur.
- Replace the battery with a Sony CR2025 lithium battery. Use of another battery may present a risk of fire or explosion.

WARNING
Battery may explode if mistreated. Do not recharge, disassemble or dispose of it in fire.

Connecting the TV Antenna/Cable

Either an indoor antenna or outdoor antenna can be connected. For better quality picture, connecting an outdoor antenna is recommended.

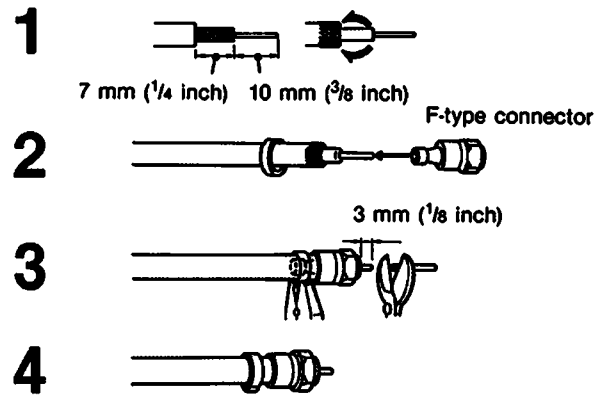
Cable TV reception is only possible by connecting a cable supplied by your local cable company.

To Connect a VHF, UHF, or VHF/UHF Combination Antenna * or CATV Cable

1 Check the cable type and prepare the cable end using the appropriate connector.

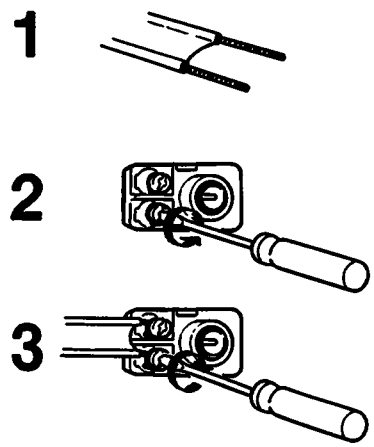
75-ohm coaxial cable (round)

Attach an optional F-type connector.



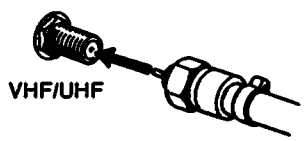
300-ohm twin-lead cable (flat)

Attach the supplied antenna connector.

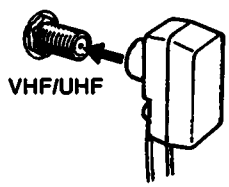


2 Plug the connector into VHF/UHF on the rear of the TV.

75-ohm coaxial cable (round)



300-ohm twin-lead cable (flat)



* Most combination antennas are equipped with a signal splitter. Remove the splitter and attach the appropriate connector.

For a better quality picture, it is recommended to use the optional cable so that the 300 ohm twin-lead cable can be kept at a distance from the TV set.

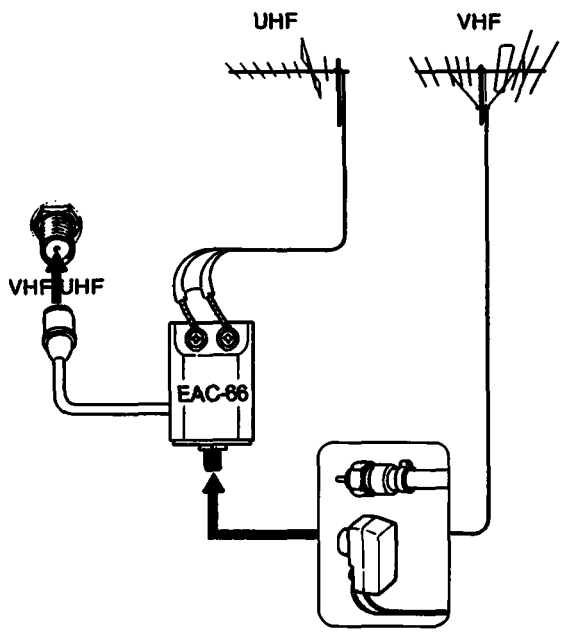
When you connect both VHF and UHF antennas

Use the optional EAC-66 U/V mixer.

1 **Prepare the VHF antenna end using the appropriate connector.**

2 **Connect the cables to the mixer.**

3 **Plug the mixer to VHF/UHF.**

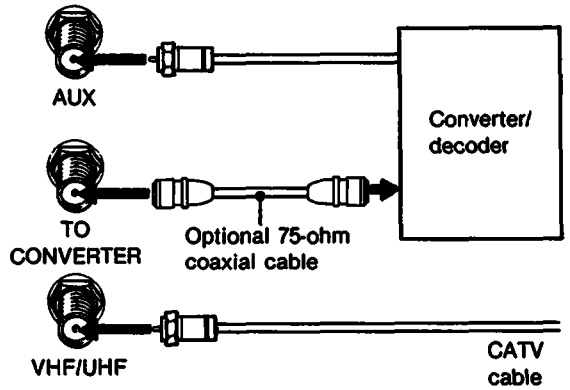


When the U/V mixer is used
Snow and noise may appear in the pictures of the cable TV channels over 37 (W + 1).

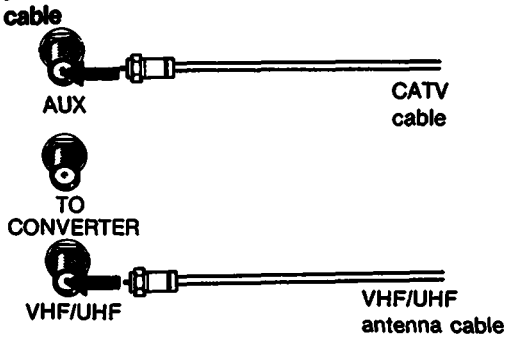
*The special converter/decoder will be supplied by the cable company.

When you connect a cable with a special converter/decoder* for pay cable TV systems

Pay cable TV systems use scrambled or encoded signals and require special converters (decoders) in addition to the normal cable connection.



When you connect both VHF/UHF antennas and a CATV cable



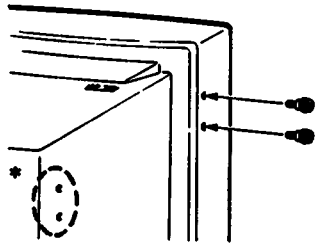
Note
In this case, do not connect anything to the TO CONVERTER terminal.

Installing the Speakers

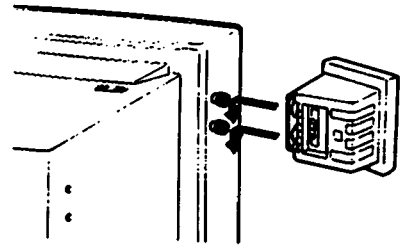
The main speakers and the super woofer are supplied only for KV-27XBR50 and KV-32XBR50.

Installing the Main Speakers

1 **Fasten the supplied screws.**



2 **Install the main speakers left and right.**

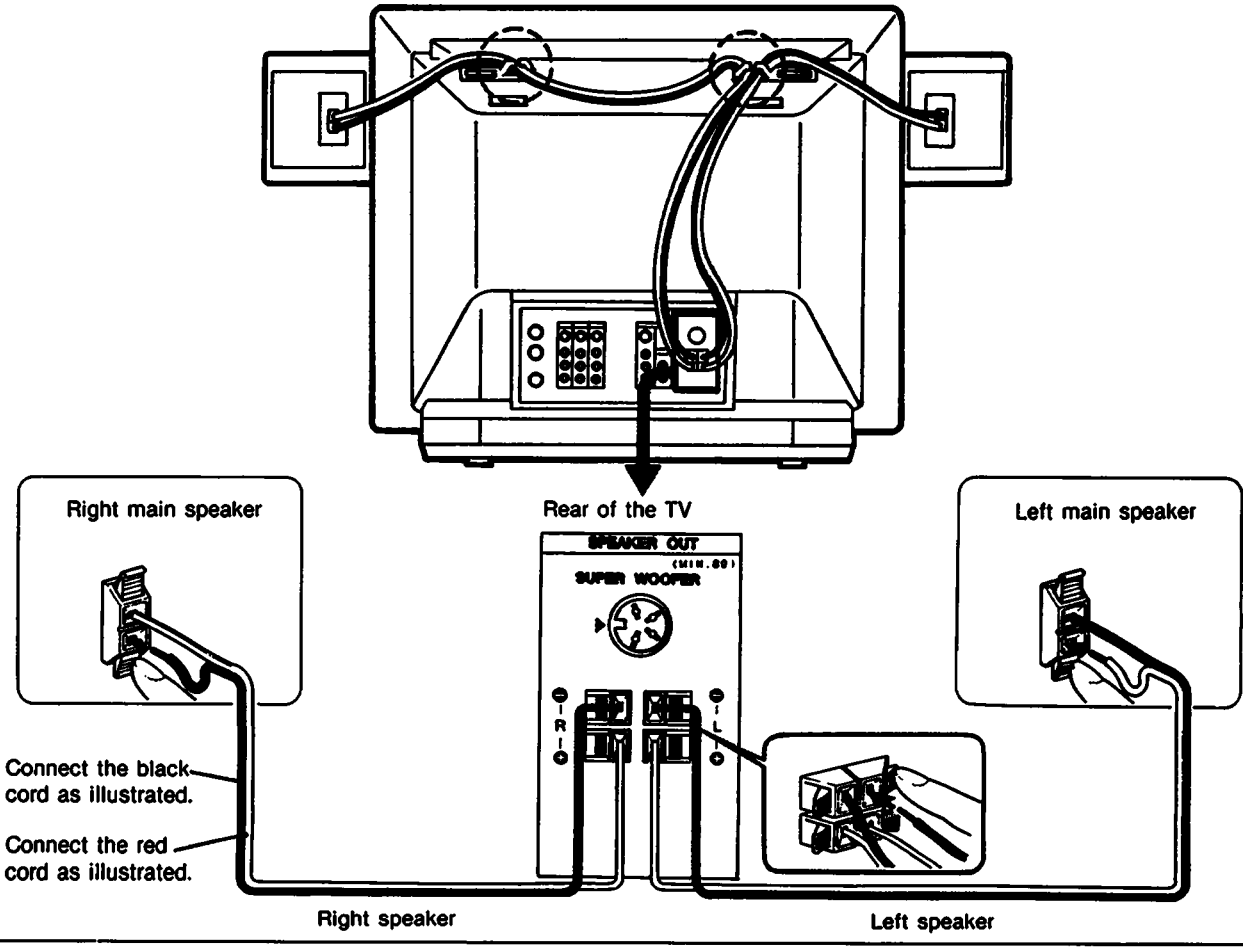


*The main speakers can be attached deep at the rear portion of the TV, too.

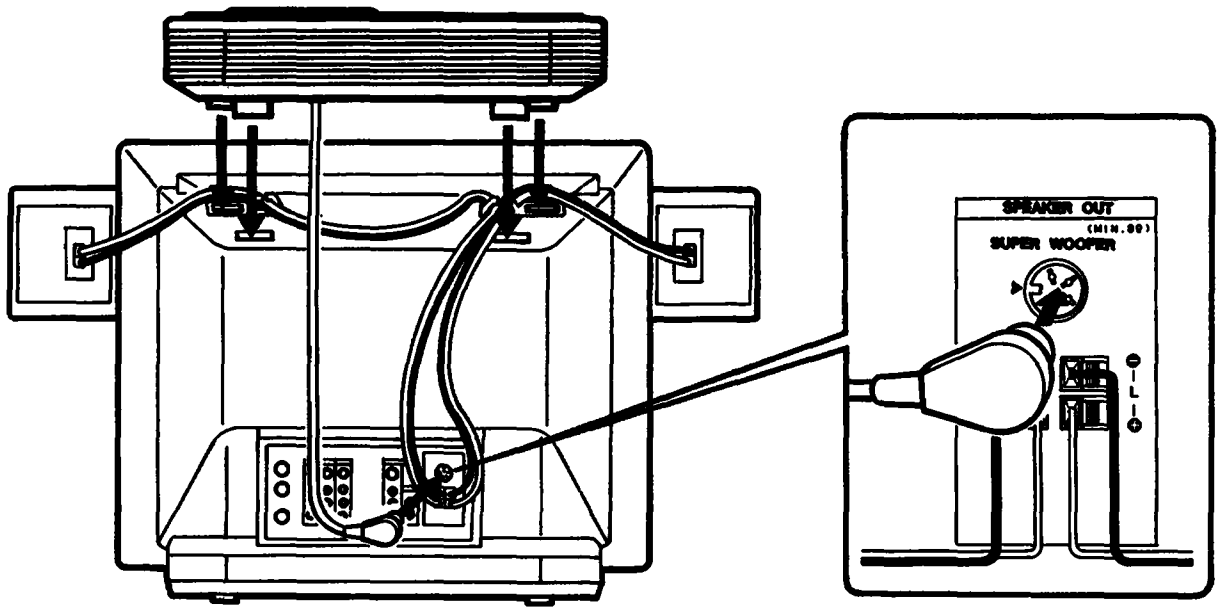
The main speakers can be placed anywhere within the reach of the speaker cords instead of attaching them to the TV. When installing them on the TV, be sure not to place them on the woofer. The speakers are provided with camera screws for installation on a speaker stand, tripod, etc.

Connecting the Main Speakers

Make sure to turn off the TV before connecting the speaker cords.



Connecting the Super Woofer



1 Insert the projecting parts at the bottom of the super woofer into the receptacles on the top of the TV.
2 Connect the super woofer cord to the SUPER WOOFER jack on the rear of the TV.

The super woofer is factory-set at the powerful sound. Press WOOFER on the Remote Commander to make bass sound less emphasized.

Notes on the speakers

- Do not carry the TV holding the main speakers.
- The low bass sound is output from the super woofer. Be careful not to block the openings of the super woofer when installing the TV. Otherwise, the low bass sound will not be fully reproduced.
- Be sure to use the supplied speakers, since the TV and the speakers produce sounds as one unit.

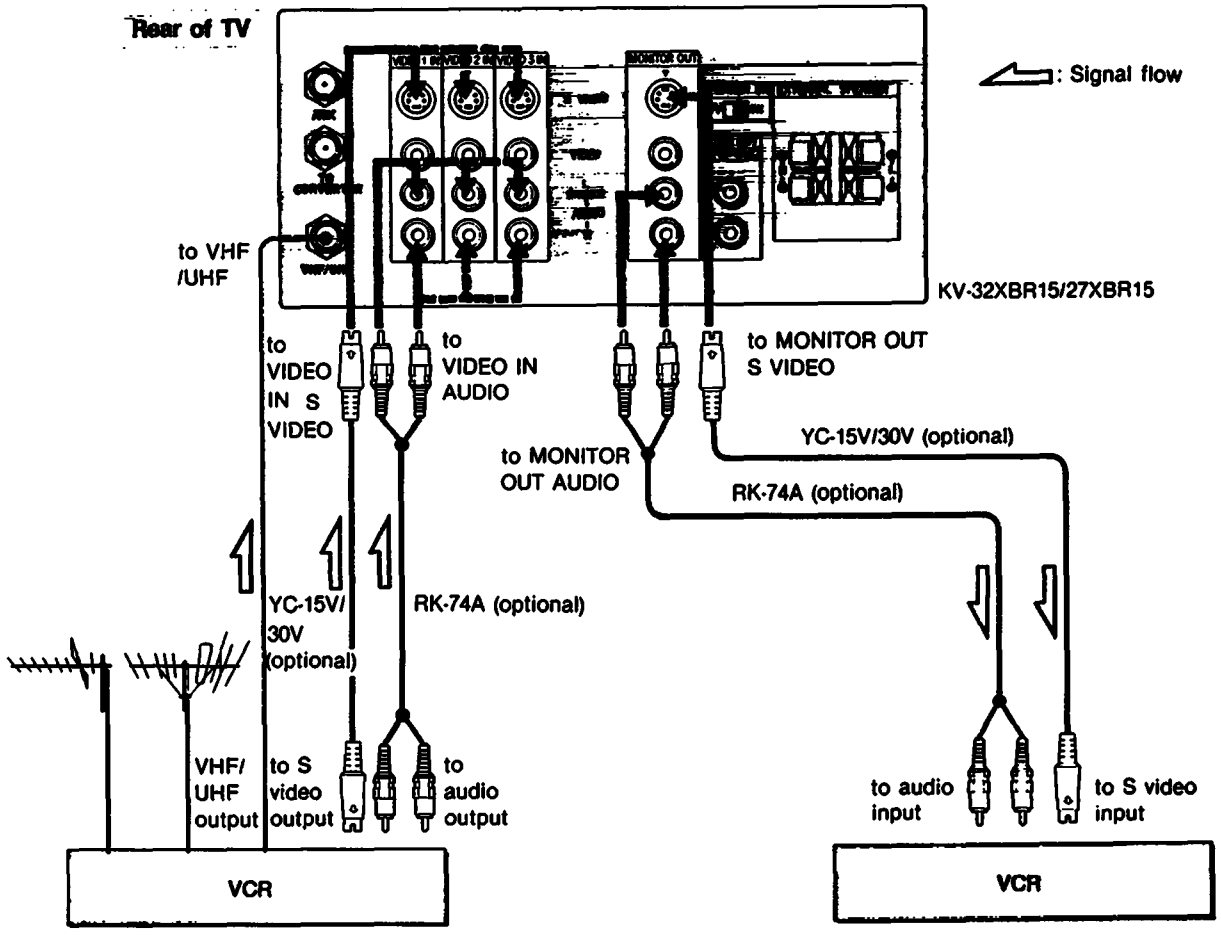
Connecting Other Equipment

The S VIDEO jacks of VIDEO 2 IN and VIDEO 3 IN are equipped only for KV-32XBR15, KV-27XBR15, KV-32XBR50 and KV-27XBR50.

Connecting a VCR

With this connection, you will be able to...
—View the playback of video tapes
—Record TV programs
—Record a TV program while viewing another

1 Connecting VCRs with an S video output jack



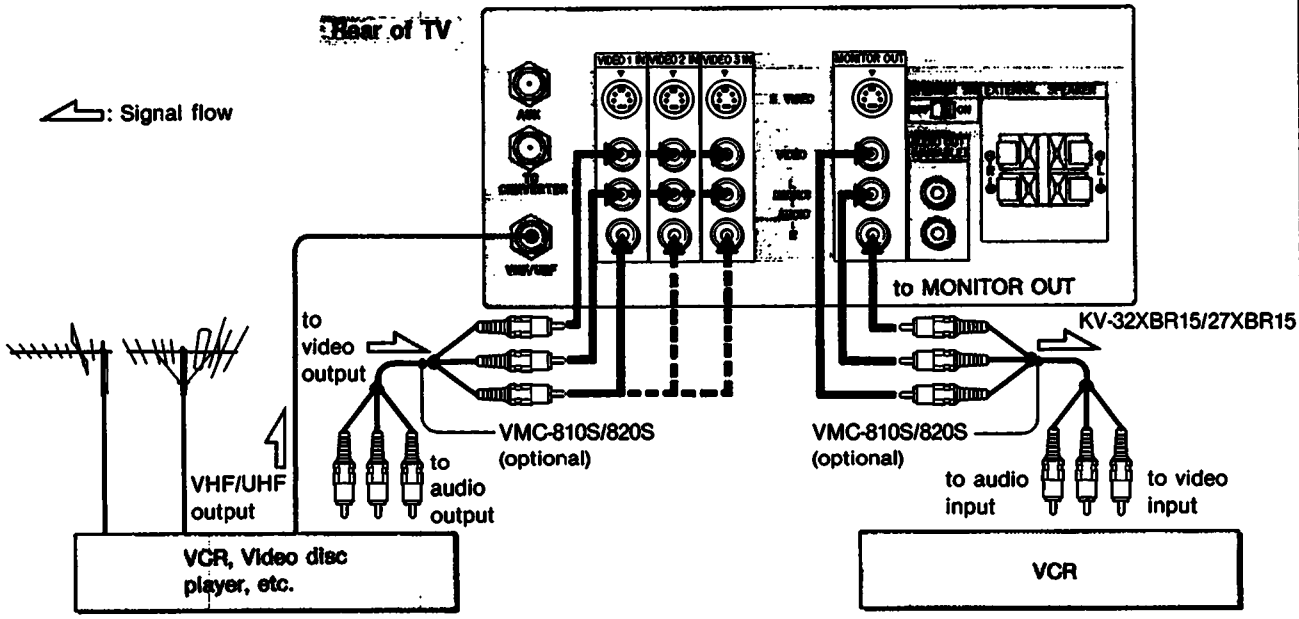
Notes: The signal input to VIDEO IN cannot be output from S VIDEO OUT.
The signal input to S VIDEO IN can only be output from S VIDEO OUT.

Notes

- If you connect a monaural VCR, connect the audio output of the VCR to the L (MONO) jack of VIDEO 1/2/3 IN of the TV. The monaural sound will be heard from both speakers.
- For operation, refer to the instruction manual furnished with the VCR.
- The signals input from VIDEO 1/2/3 IN are not output from MONITOR OUT.
- Keep the VCR away from the TV if the picture or sound is affected.

About S video input
Video input and output signals can be separated into Y (luminance or brightness) and C (chroma or color) signals. Usually these two signals are combined in a VCR and sent as one signal to a TV. Separation of the Y and C signals prevents them from interfering with one another, thereby improving picture (especially in color) quality.
This unit is equipped with an S video input jack through which these separated signals can be input directly.

2 Connecting VCRs/video disc players not equipped with an S video output jack



Preparations

1 **Turn on the TV.**

2 **Press the TV/VIDEO button on the TV or an input select button on the Remote Commander so that the "VIDEO 1", "VIDEO 2" or "VIDEO 3" indication appears on the screen.**
VIDEO 1: for equipment connected to VIDEO 1 IN
VIDEO 2: for equipment connected to VIDEO 2 IN
VIDEO 3: for equipment connected to VIDEO 3 IN

You can label each of these input modes. For details, see page 40.

Operation

For operation, refer to the instruction manual furnished with the VCR.

When using an infrared remote control VCR made by Sony or other manufacturer, the VCR can be operated with the supplied Remote Commander.
See "Using the Programmable Remote Commander" on page 44.

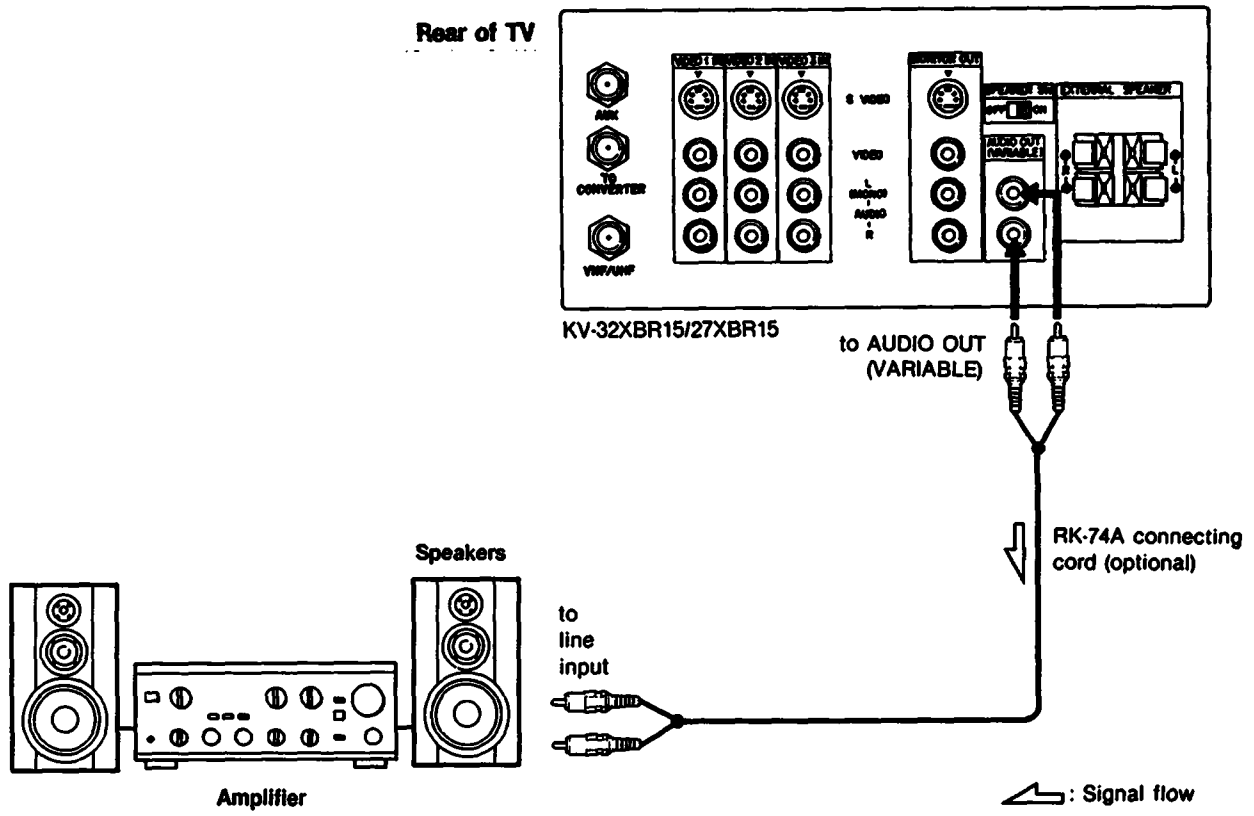
To return to the TV mode
—Press the TV/VIDEO button on the TV so that a channel number appears on the screen.
—Press the TV button on the Remote Commander.

To view one TV program while recording another
Press the TV/VTR mode select button on the VCR or Remote Commander so that the VCR will be in the TV mode. Press the TV button on the Remote Commander, and select the channel you want to view.

When you cannot obtain a clear picture and/or sound
Make sure that the TV/VTR mode select button on the VCR is set to TV. Re-select the desired channel with the buttons on the TV or the Remote Commander.

Connecting an Audio System

—To listen to the TV or connected VCR sound through an audio system



Set the amplifier's function to line input.

To adjust the sound level

Leave the amplifier volume, bass and treble controls at their mid position and adjust the level with the VOLUME buttons on the TV or the VOL buttons on the Remote Commander.

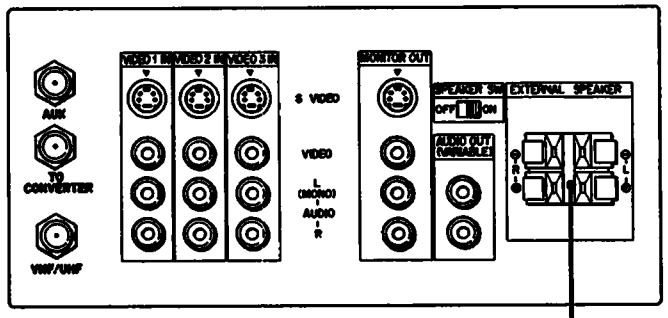
When an audio system is connected to AUDIO OUT, be sure to set the SPEAKER SW (switch) on the TV to OFF. The sound from the TV's speakers will be cut off.

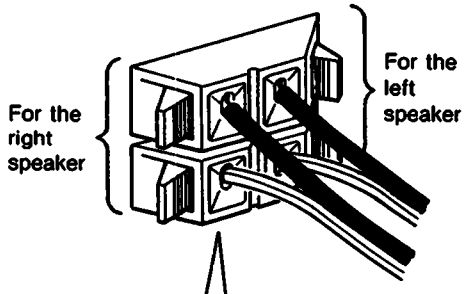
For better sound, we recommend that you use the optional video rack (see page 50).

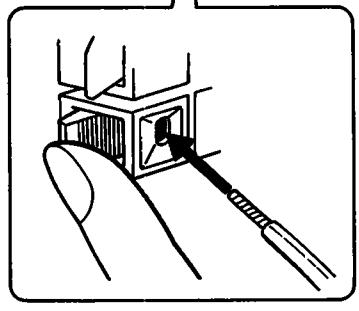
Connecting Extra (not supplied) External Speakers

The models equipped with external speaker terminals are:
KV-32XBR15
KV-27XBR15

Rear of TV







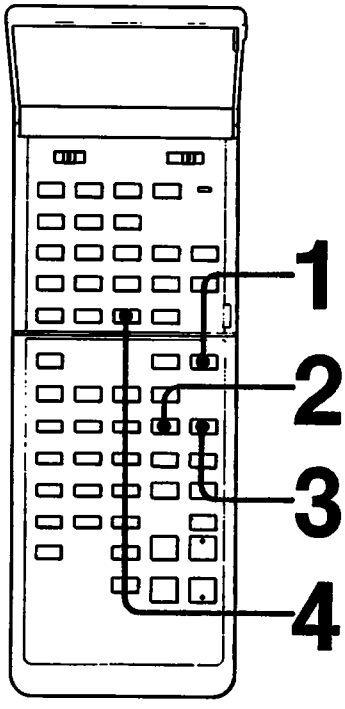
Connect the other end of the cords to the input terminals of the corresponding speakers in the same way as above.

If you connect external speakers,
they must be rated at 8-ohm impedance (with normal power holding capacity of more than 7W).

Phasing
Correct ⊕ ⊖connection of both speaker systems ensures proper in-phase operation. If the speaker system is out-of-phase, the bass tones seem to be missing and the position of the instruments becomes obscure.

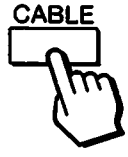
Presetting TV Channels

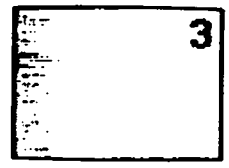
To Preset All Receivable Channels Automatically



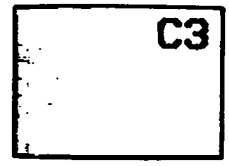
1 **Press POWER on the TV or the Remote Commander to turn the TV on.**

2 **Press CABLE so that the appropriate mode appears.**



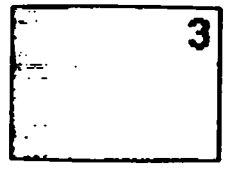


To preset VHF or UHF channels

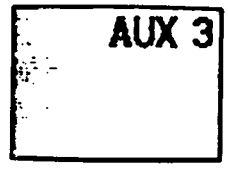


To preset cable TV channels

3 **Press ANT/AUX according to the channel to be preset.**



To preset VHF, UHF or regular cable TV channels



To preset pay cable TV channels

4 **Press AUTO PGM.**

"AUTO PROGRAM" is displayed on the screen and receivable channels (other than the channels already preset) will be preset in numerical sequence. The channels previously preset remain in the unit's memory.
When no more channels can be found, the programming stops and the lowest numbered channel is displayed.

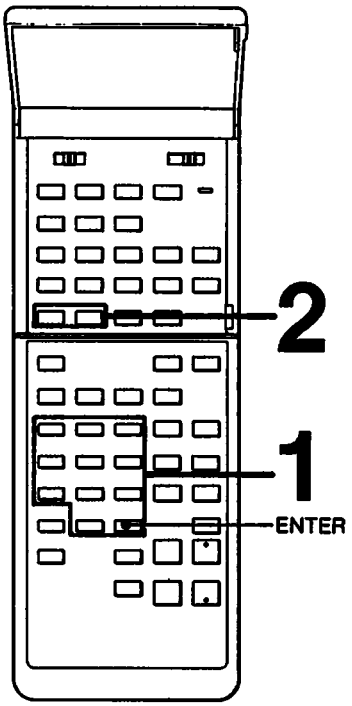
Receivable channels of this TV are:
VHF: 2-13
UHF: 14-69
Cable: 1-125

To add the channels that could not be preset with automatic programming because their signal strength was too weak, or **to erase unnecessary channels,** follow the steps in "To preset only the desired channels" on the next page.

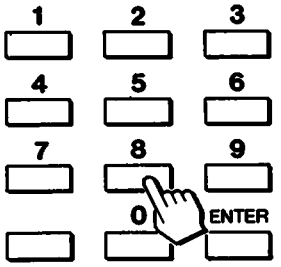
To check preset channels
Press CH +/–.

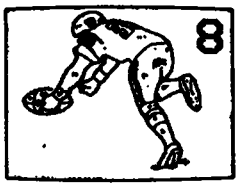
If the indication "VIDEO 1, VIDEO 2, VIDEO 3, S VIDEO, LD, or VTR" is displayed on the screen
Press the TV/VIDEO button on the TV or the TV button on the Remote Commander so that a channel number appears.

To Preset Only the Desired Channel or to Erase Unnecessary Channels

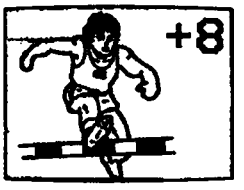


1 **Press the channel number button(s) and then ENTER to select the channel to be added or erased.**



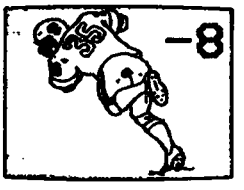


2 **To add channels — Press ADD.**



A "+" appears for a moment.
This channel has now been added to the channel scan memory.

To erase channels — Press ERASE.



A "–" appears for a moment.
This channel has now been erased from the channel scan memory. The next time the CH +/– button is pressed, this channel will be skipped.

Repeat steps 1 and 2 for other channels to be added or erased.

When a VHF or UHF channel is erased
The cable TV channel with the same number is also erased and vice versa.

Cable TV channel chart*
Cable TV systems use letters or numbers to designate channels. To tune in a channel, refer to the chart below.

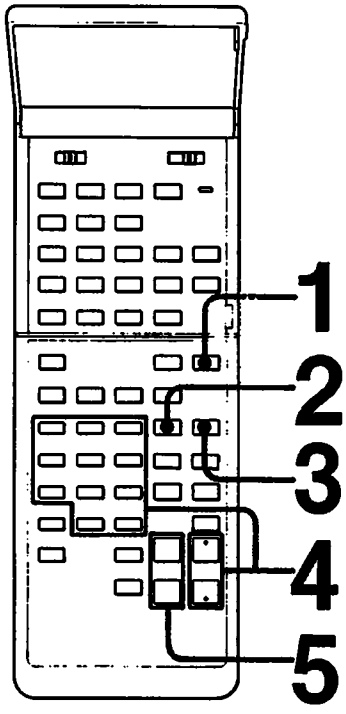
Number on this TV	1	5	6	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Corresponding CATV channel	A–8	A–7	A–6	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q

31	32	33	34	35	36	37	38	39	.....	93	94	95	96	97	98	99	100	101	102	.....	123	124	125
R	S	T	U	V	W	W+1	W+2	W+3	.....	W+57	W+58	A–5	A–4	A–3	A–2	A–1	W+59	W+60	W+61	.....	W+82	W+83	W+84

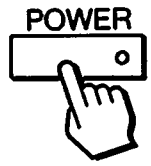
Check with your local cable TV company for more complete information on the available channels.

*The designation of the cable TV channels conforms to the EIA/NCTA recommendation.

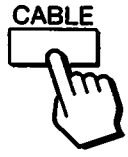
Watching TV Programs



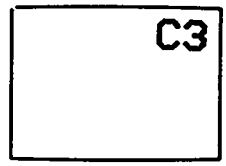
1 **Press POWER on the TV or the Remote Commander to turn the TV on.**



2 **Press CABLE so that the appropriate mode appears.**

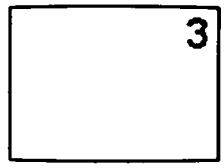


To view VHF or UHF channels

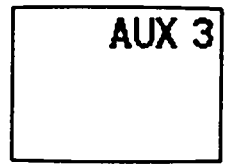


To view cable TV channels

3 **Press ANT/AUX according to the channel to be watched.**



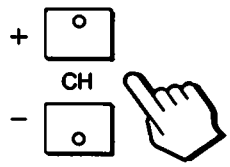
To view VHF, UHF or regular cable TV channels



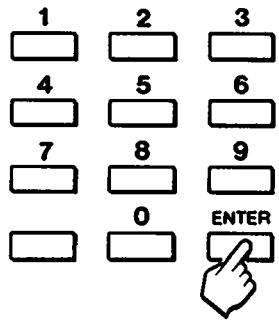
To view pay cable TV channels

4 **Select a channel in one of the following two ways:**

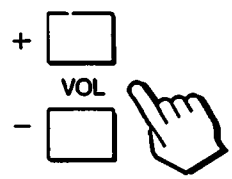
To scan the preset channels in numerical sequence, press CH +/–.



To select a channel directly, press the channel number button(s) and then ENTER. For example, to select channel 10, press 1, 0 and ENTER.



5 **Press VOL + or – to adjust the volume.**



To turn off the TV
Press POWER on the TV or the Remote Commander again.

If the indication "VIDEO 1, VIDEO 2, VIDEO 3, S VIDEO, LD, or VTR" is displayed on the screen
Press the TV/VIDEO button on the TV or the TV button on the Remote Commander so that a channel number appears.

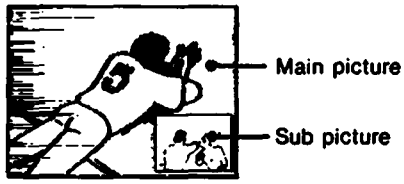
Enjoying the Picture-in-picture Feature

KV-27XBR15
KV-32XBR15

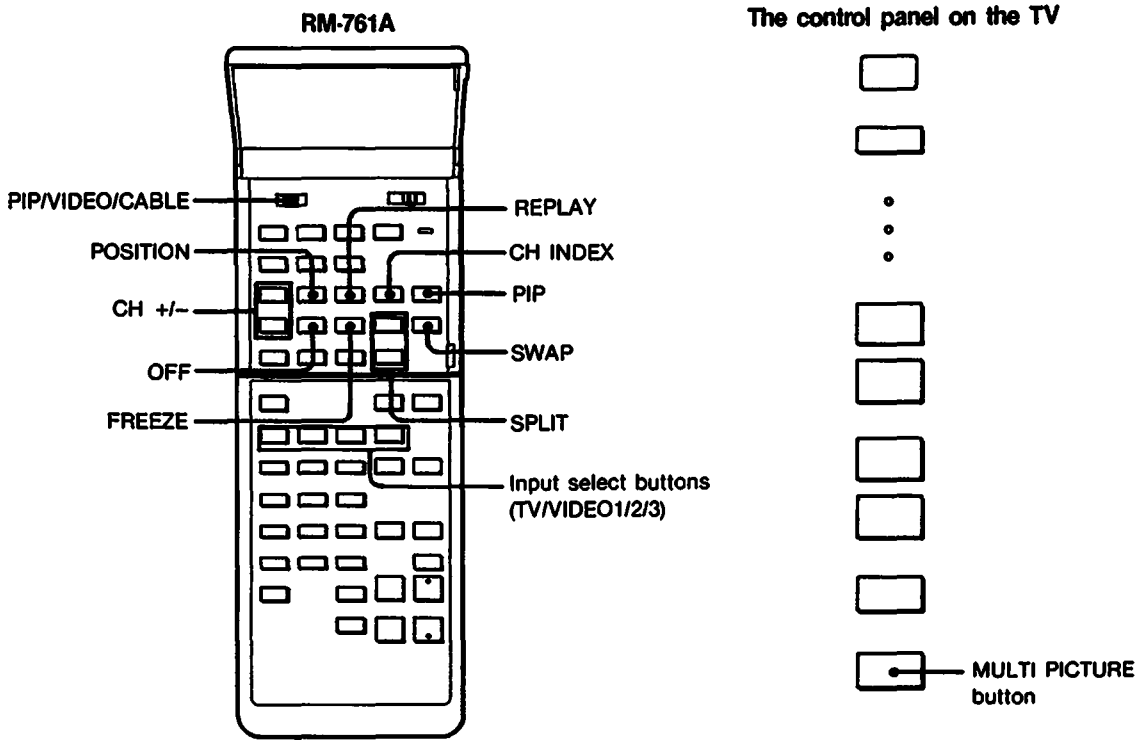
KV-27XBR65
KV-32XBR65

Besides the main picture, you can watch another TV channel or a video source simultaneously as a sub picture.

You can enjoy the covenience of the picture-in-picture when there are two TV channels you want to watch at the same time or when you want to monitor VCR dubbing while watching TV, etc.



Buttons used for picture-in-picture operations



Notes

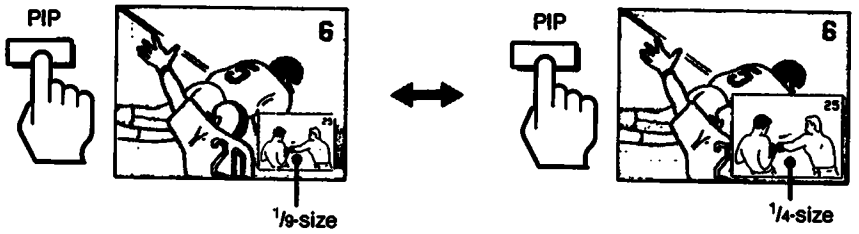
- The channels being received through the AUX terminal cannot be displayed as a sub picture except as a SPLIT picture (see page 25) or a REPLAY picture (see page 24).
- If the main picture is blocked, picture-in-picture does not function.

The models equipped with this function are: KV-27XBR15/32XBR15/27XBR65/32XBR65

To display a sub picture

1 **Set the PIP/VIDEO/CABLE selector to PIP.**

2 **Press PIP.**



The sub picture in the last mode you watched will appear. Each time PIP is pressed, a 1/4-size or 1/9-size sub picture will appear alternately.
Picture-in-picture also functions when the main picture is in the VIDEO mode.

To make the sub picture disappear
Press OFF.

To scan programs of a sub picture
Press CH +/– in the picture-in-picture section.

To change the sub picture from the TV to VIDEO mode (or vice versa)
Press SWAP so that the sub picture becomes the main picture.
Press the input select button (TV/VIDEO 1/2/3) to change the mode.

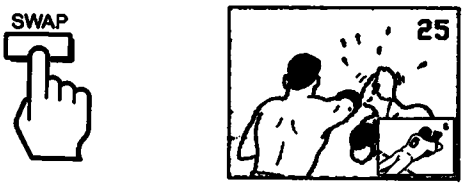
Notes on the sub picture
- The sound of the sub picture cannot be heard.
- In the sub picture, the VIDEO LABEL and CHANNEL CAPTION will not appear even if you have set them.
- If a sub picture is blocked, the "B" indication will appear on the sub screen.

To swap the main and the sub pictures

1 **Set PIP/VIDEO/CABLE selector to PIP.**

2 **Press PIP to display a sub picture.**

3 **Press SWAP.**



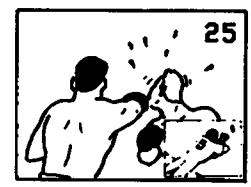
KV-27XBR15
KV-32XBR15

KV-27XBR65
KV-32XBR65

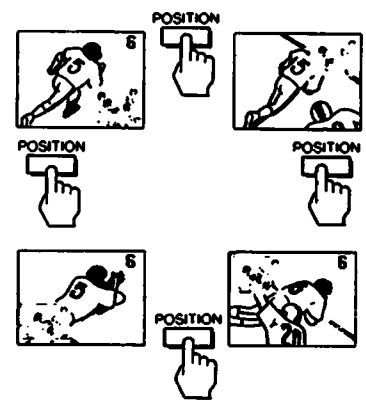
To change the position of the sub picture

1 **Set the PIP/VIDEO/CABLE selector to PIP.**

2 **Press PIP to display a sub picture.**



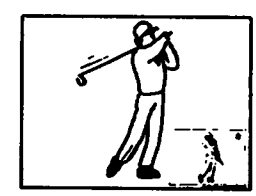
3 **Press POSITION.**
Each time POSITION is pressed, the sub picture will move as illustrated.



To replay the main picture displayed 2 seconds before in the sub picture

1 **Set the PIP/VIDEO/CABLE selector to PIP.**

2 **Press REPLAY.**



To make the replay picture disappear, press OFF.

Note
The replay picture is always displayed in 1/9 size.

The models equipped with this function are: KV-27XBR15/32XBR15/27XBR65/32XBR65

To freeze a TV picture

1 **Set the PIP/VIDEO/CABLE selector to PIP.**

2 **Press FREEZE.**
The TV picture will be frozen.
Freezing the picture is convenient when you want to write down a recipe of a cooking program or a displayed toll free number, etc.

Note
Since the broadcast continues normally while the still picture is on the screen, you will miss a part of the program.

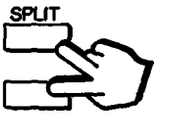
To restore the normal picture, press OFF.

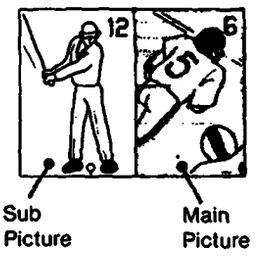
To split the screen with the main and the sub pictures

1 **Set the PIP/VIDEO/CABLE selector to PIP.**

2 **Press SPLIT.**
Be sure to press these two buttons simultaneously.

To make the sub picture disappear
Press OFF.





Notes
- Only the sound of the main picture (right screen) is heard.
- When using the split-screen feature, vertical lines may appear to you to be elongated.
- To swap the main and the sub pictures in the split screen, press SWAP.

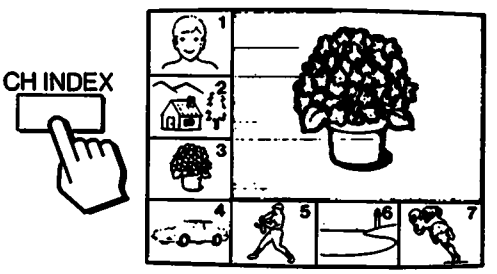
KV-27XBR15
KV-32XBR15

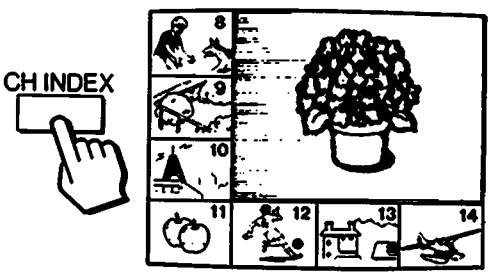
KV-27XBR65
KV-32XBR65

To display seven different sub pictures simultaneously

1 **Set the PIP/VIDEO/CABLE selector to PIP.**

2 **Press CH INDEX.**





Programs of seven TV channels appear in numerical sequence as sub pictures.
Each time CH INDEX is pressed, the next seven channels will appear.

To cancel CH INDEX, press OFF.

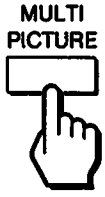
Note
When using the CH INDEX function, part of the main picture is hidden by the sub picture.

The models equipped with this function are: KV-27XBR15/32XBR15/27XBR65/32XBR65

To demonstrate all the picture-in-picture features one by one

1 **Set the PIP/VIDEO/CABLE selector to PIP.**

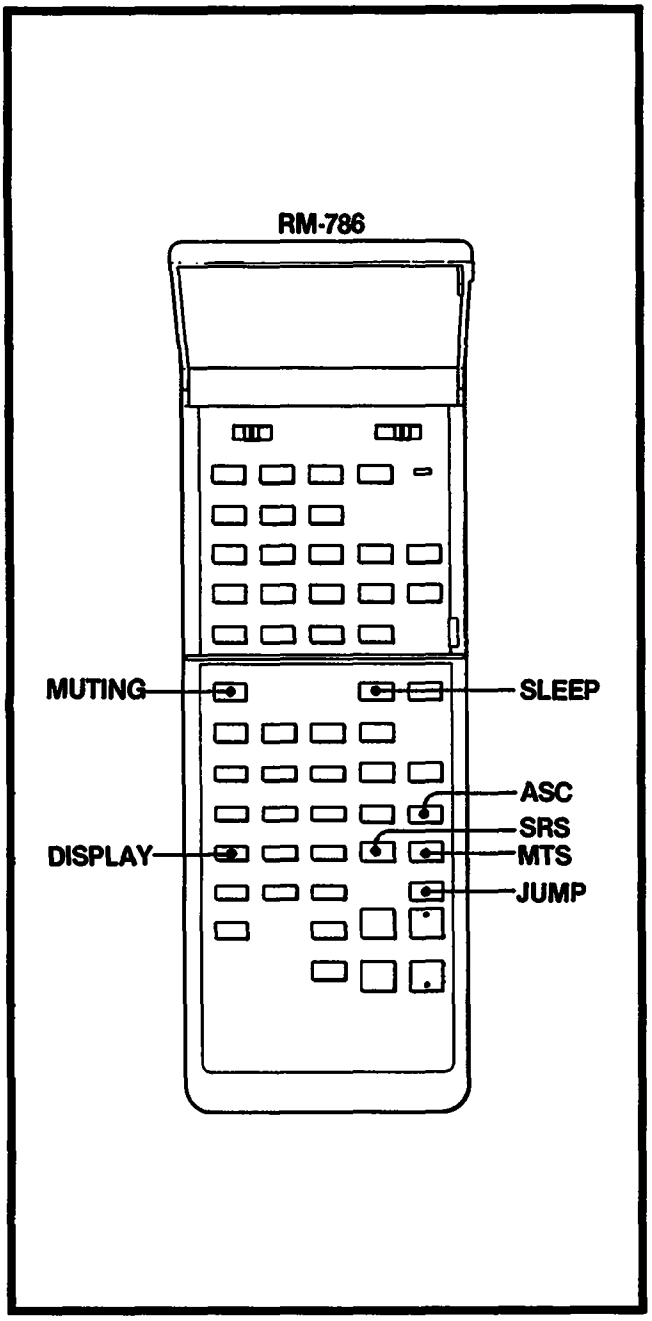
2 **Press MULTI PICTURE on the TV.**
The features will be demonstrated as follows:



REPLAY → P-in-P → POSITION → SWAP
↓ ↑
OFF ← FREEZE ← CH/INDEX ← SPLIT

To cancel the demonstration, press OFF.

Enjoying Convenient Features



Muting the sound

Press MUTING.
The "MUTING" indication will appear on the screen.
To restore the sound, press MUTING again or VOL +.

Keeping the channel displayed

Press DISPLAY.
To make the channel display disappear, press DISPLAY again.

Using the SLEEP timer

Press SLEEP.
The TV will be turned off automatically after about 1 hour. The "SLEEP" indication will appear on the screen for a few seconds and the SLEEP indicator on the TV will remain lit until the TV is turned off.
To cancel the SLEEP timer, press SLEEP again so that the SLEEP indicator goes out, or turn off the TV.

For KV-27XBR50/32XBR50, the green "SLEEP ON" indication will appear on the screen for three seconds when the SLEEP button is pressed. And the red "SLEEP" indication will appear one minute before the TV is turned off automatically. When the SLEEP button is pressed again, the "SLEEP OFF" indication will appear three seconds before the SLEEP timer is canceled.

Only for KV-27XBR50/32XBR50

Getting the most vivid picture

Press ASC.
The "ASC ON" indication with the rotating mark (⟲) will appear on the left bottom of the screen for a few seconds to let you know the ASC is activated. The ASC continually adjusts sharpness, brightness, color and picture settings for optimum picture quality. The ASC automatically reduces noise when the signal is weak (in weak electric field).
To cancel the ASC, press ASC again. The "ASC OFF" indication will appear on the screen.

For more natural sound reproduction

Press SRS (sound retrieval system).
The "(●) SRS" indication will appear on the screen.
To cancel SRS, press SRS again.

For KV-27XBR50/32XBR50, each time **SRS** is pressed, SRS (STEREO) , SRS (MONO) or SRS OFF is selected in sequence. On the SRS (MONO) mode the natural sound of a monaural source can be also enhanced.

Receiving a Multichannel TV Sound program

Each time **MTS** is pressed, MAIN, SAP (Second Audio Program), or MONO is selected in sequence.
To listen to stereo sound, select the MAIN mode so that the on-screen MAIN indication appears. The STEREO indicator on the TV lights up whenever a stereo broadcast is received.
There may be cases of stereo broadcasts where excessive noise will be heard due to a weak incoming signal. You may be able to eliminate this noise by selecting the MONO mode.

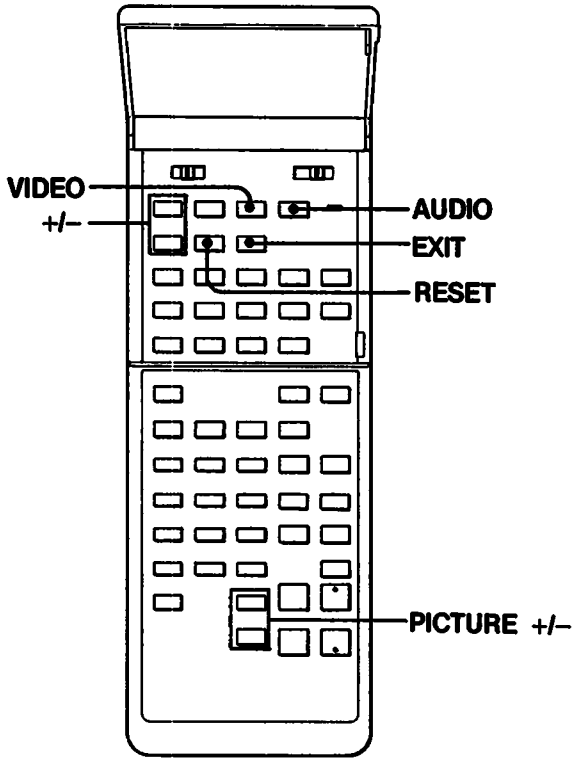
Switching quickly between two channels

Press JUMP.
Each time JUMP is pressed, the channel which appeared on the screen directly before is recalled. This button enables you to keep track of two programs alternately. JUMP also switches programs in the ANT/AUX mode.

Adjusting the Picture and Sound

You can adjust the picture and sound levels and have the unit store them for each input mode (TV/VIDEO 1/2/3).

Buttons used for adjustment



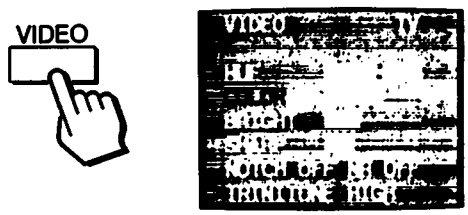
For operation, see the next pages.

Adjusting the Picture

Press VIDEO repeatedly until the on-screen display of the item to be adjusted appears.

HUE

COLOR



To restore the normal picture, press **EXIT.**

To clear the adjustment levels and restore the factory preset levels at once, press **RESET.**

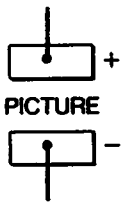
For models with the picture-in-picture function:

- The HUE and COLOR adjustment are not operable when the picture is frozen.
- The SHARPNESS control is not operable for a sub picture.

* **TRINITONE adjustment**
Usually color picture tubes are manufactured with a fixed color temperature (tint) that determines the "warmness (reddish)" or "coolness (bluish)" of the picture it produces. With Sony's Trinitone feature, you can adjust the color temperature of the picture to your preference.

To adjust picture contrast

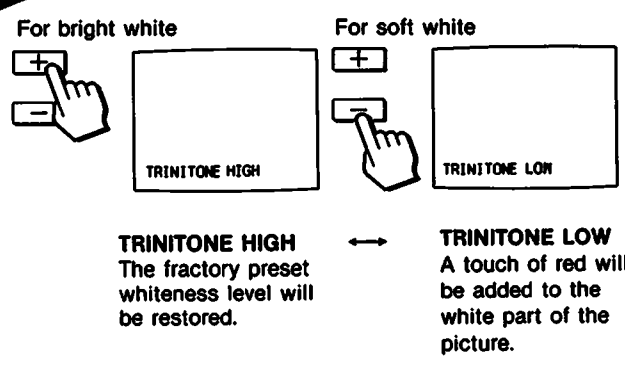
Press to increase picture contrast with vivid color.



Press to decrease picture contrast with soft color.

The picture contrast level cannot be memorized under each input mode.

TRINITONE*

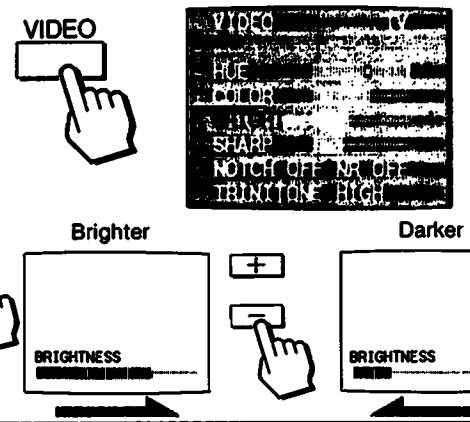


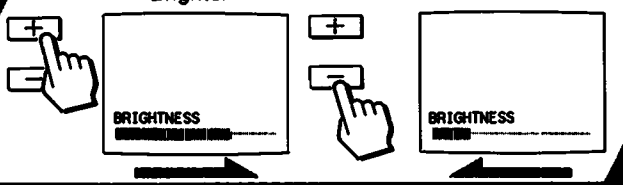
TRINITONE HIGH ⟷ **TRINITONE LOW**

TRINITONE HIGH
The fractory preset whiteness level will be restored.

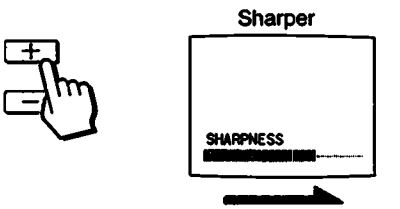
TRINITONE LOW
A touch of red will be added to the white part of the picture.

BRIGHT (brightness)



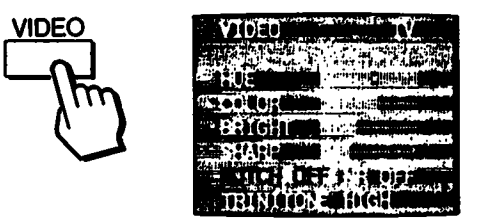


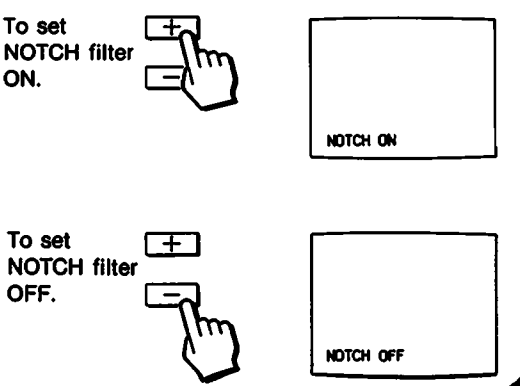
SHARP (sharpness)



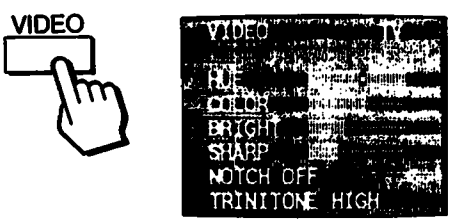
NOTCH filter setting
Normally, set to NOTCH OFF.
If dots or stripes appear while you are watching a picture from a computer or a video source, set to NOTCH ON.

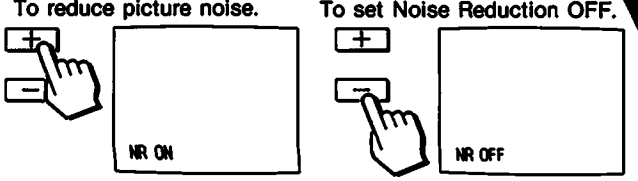
NOTCH





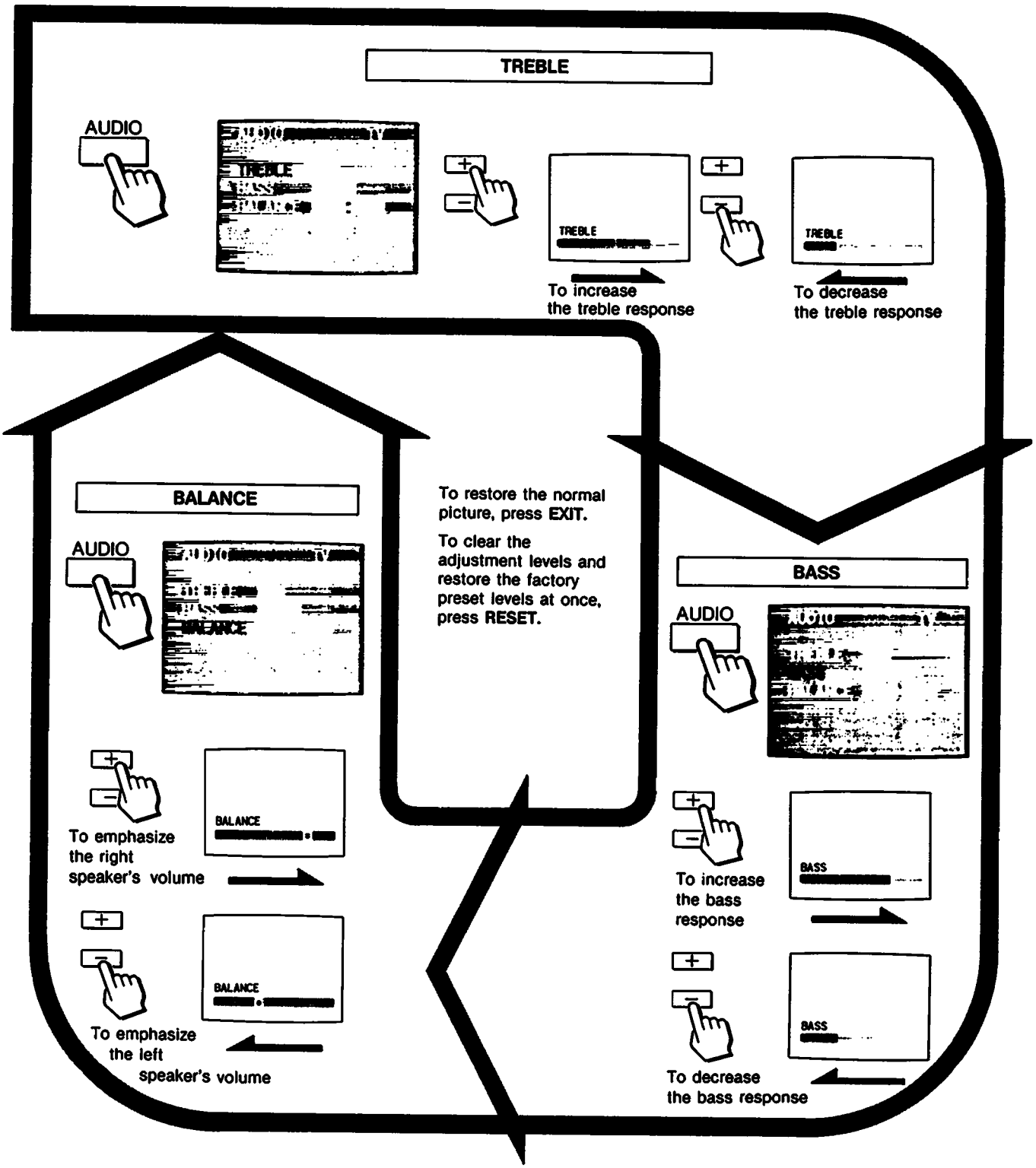
NR (Noise Reduction)





Adjusting the Sound

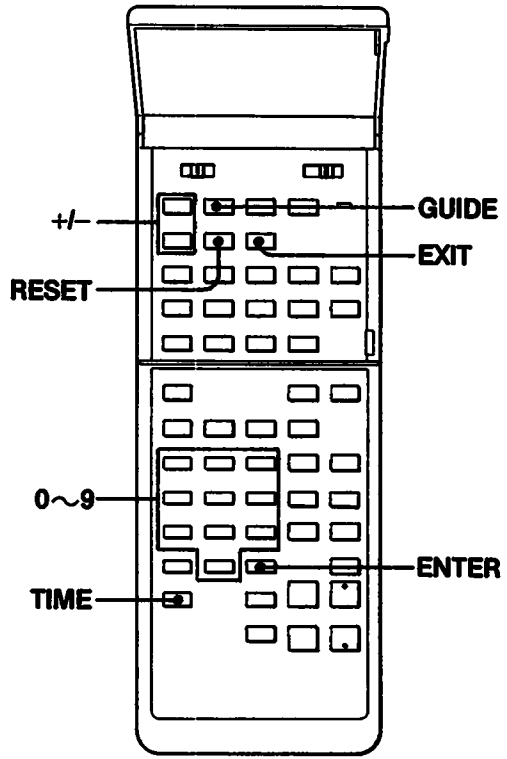
Press AUDIO repeatedly until the on-screen display of the item to be adjusted appears.



Using the GUIDE Function

The GUIDE function calls up the on-screen menu and instructions on how to set the current time, timer, channel block, video label, and channel caption.

Buttons used for the GUIDE function

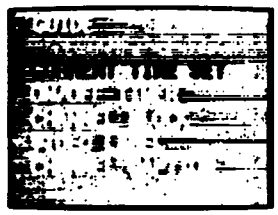


- All settings will be erased from the unit's memory if the unit is unplugged, or if a power failure occurs.
- The ON/OFF TIMER and CHANNEL BLOCK will operate only if the clock is set correctly.

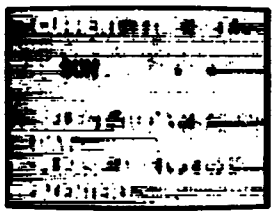
Setting the Clock

Example: To set the clock to 5:30 PM, Monday.

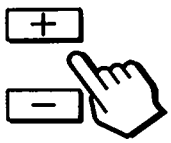
1 **Press GUIDE.**
Press repeatedly until "CURRENT TIME SET" turns red.

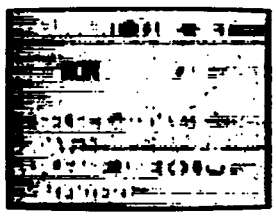


2 **Press ENTER.**

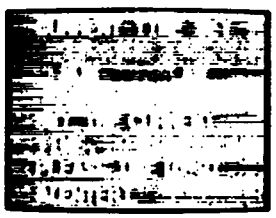


3 **Press +/– until the desired day of the week appears.**

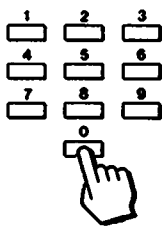


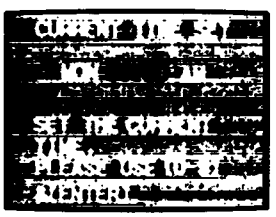


4 **Press ENTER.**
If the time is already set, the current set time will appear. To clear these numbers, press any number.

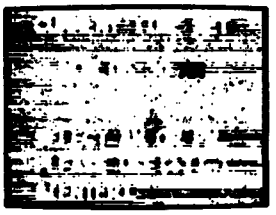


5 **Press 0–9 to set the desired time.**
(For 5:30, press 0, 5, 3, 0)

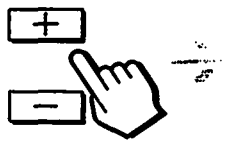


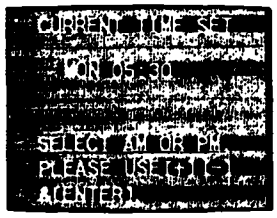


6 **Press ENTER.**

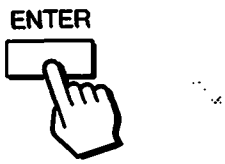


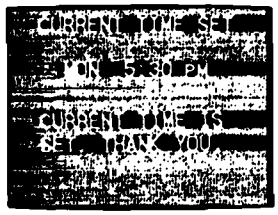
7 **Press +/– to set AM or PM.**





8 **Press ENTER.**
The moment ENTER is pressed, the clock will start.
Now, the clock is set. The indication will disappear after approx. 5 seconds.





To restore the normal picture
Press EXIT.

To clear the current time setting
Display the "CURRENT TIME SET" page and press RESET, then EXIT.

To reset the setting
Display the "CURRENT TIME SET" page and press RESET, then repeat steps 3 to 8.

To display the current time
Press TIME.

Note
The internal clock of this TV operates on a 12-hour cycle. If a 24-hour cycle number is entered, it will be cleared when ENTER is pressed.

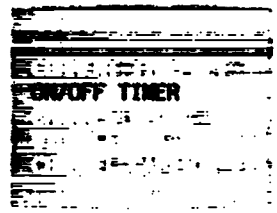
12:00 AM stands for midnight.
12:00 PM stands for noon.

Setting the ON/OFF Timer

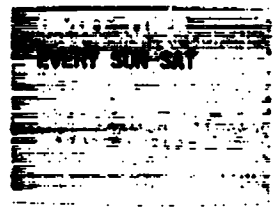
ON/OFF TIMER allows the program of your choice to appear on the screen at the desired time.

Example: Set the timer to turn on the TV to channel 8 at 1:00 PM for 3 hours every Monday through Friday.

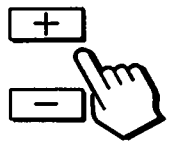
1 **Press GUIDE.**
Press repeatedly until "ON/OFF TIMER" turns red.

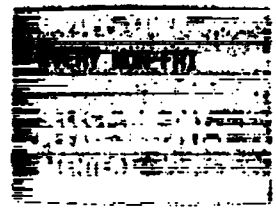


2 **Press ENTER.**
If the clock has not been set, "PLEASE SET CURRENT TIME FIRST" appears on the screen. Go back to page 34.

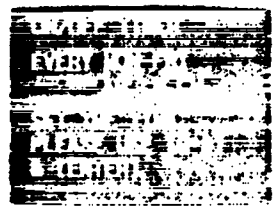


3 **Press +/– until the desired day of the week appears.**

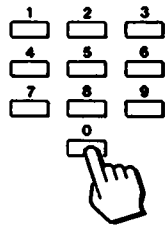


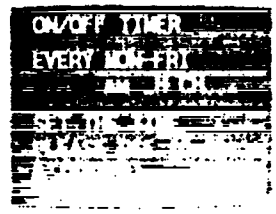


4 **Press ENTER.**

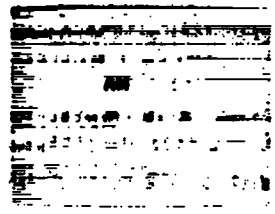


5 **Press 0–9 to set the desired time.**
(For 1:00, press 0, 1, 0, 0.)

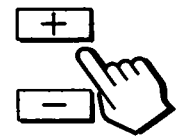


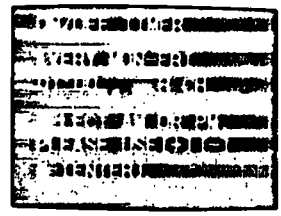


6 **Press ENTER.**

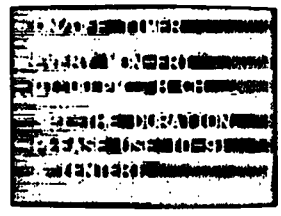


7 **Press +/– to set AM or PM.**

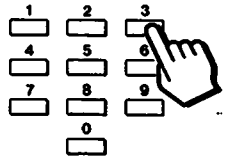


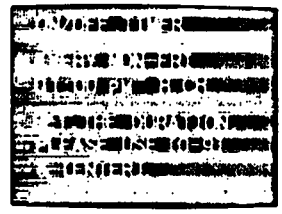


8 **Press ENTER.**

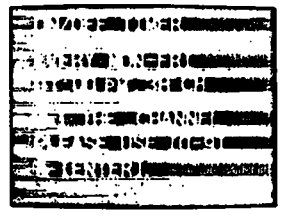


9 **Press a number button to set the duration.**
(Up to 9 hours can be set).

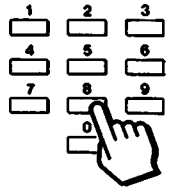


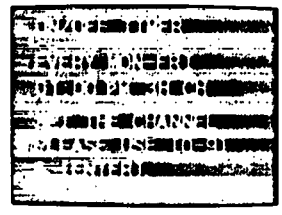


10 **Press ENTER.**

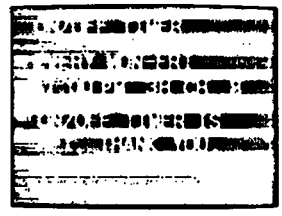


11 **Press 0–9 to set the desired channel number.**





12 **Press ENTER.**
Now the ON/OFF timer is set.
The TIMER indicator on the TV lights up.



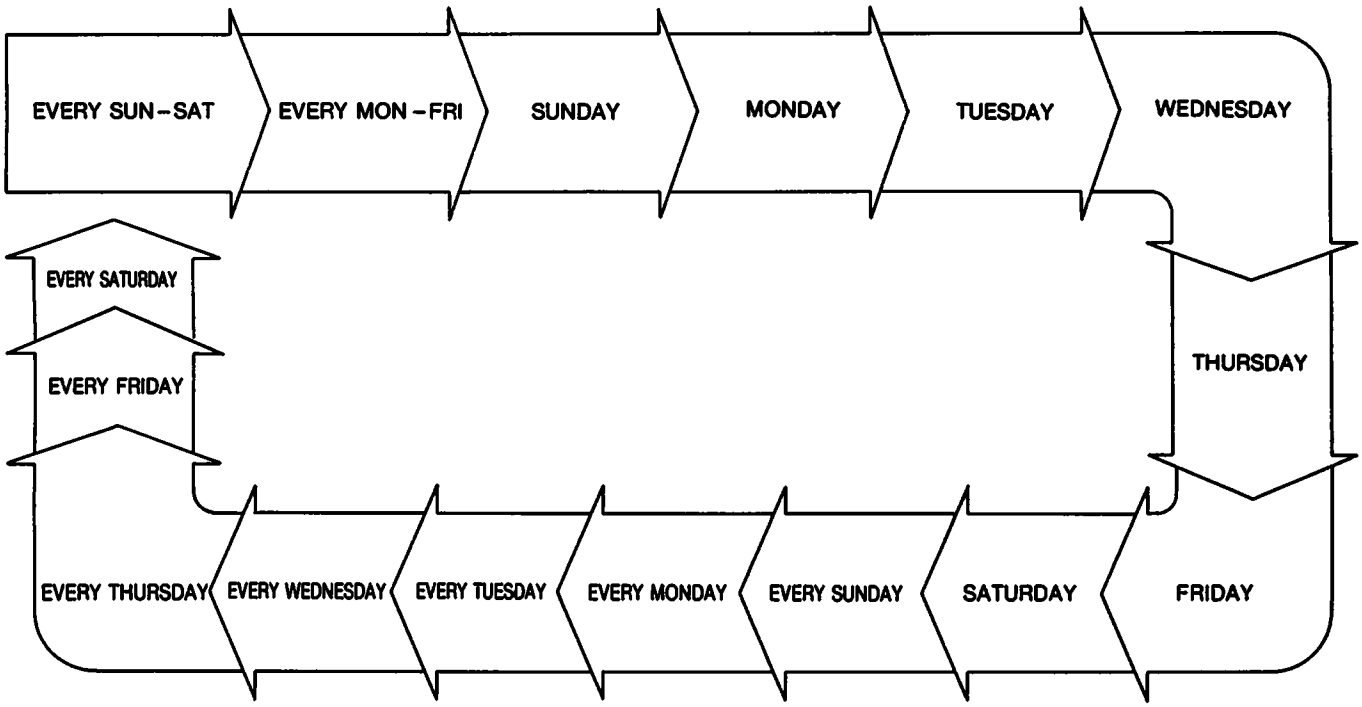
To restore the normal picture
Press EXIT.

To clear the setting
Display the "ON/OFF TIMER" page and press RESET, then EXIT.

To reset the setting
Display the "ON/OFF TIMER" page and press RESET, then repeat steps 3 to 12.

The indication "TIMER WILL BE OFF" will appear one minute before the timer goes off.

Note
The selectable days will appear when you press [+] in the following order:



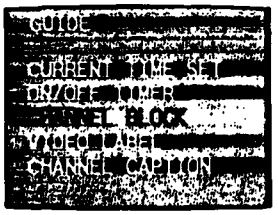
Press [–] for reverse direction.

Setting the Channel Block

CHANNEL BLOCK prevents a channel from appearing on the screen for preset hours. We suggest you use this function to prevent children from watching undesirable programs.

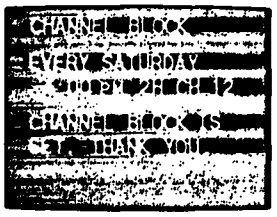
Example: Set the CHANNEL BLOCK at 4:00 PM (for 1 hour), every Saturday, at channel 12.

1 **Press GUIDE.**
Press repeatedly until "CHANNEL BLOCK" turns red.



Step **2–11**: Same as Setting the ON/OFF Timer. (See page 36.)

12 **Press ENTER.**
Now CHANNEL BLOCK is set.
At the preset time, the picture of the selected channel will be blocked from view and the sound will be muted. A red "BLOCKED" indication will appear on the screen while the channel is blocked.



To restore the normal picture
Press EXIT.

To clear the setting
Display the "CHANNEL BLOCK" page and press RESET, then EXIT.

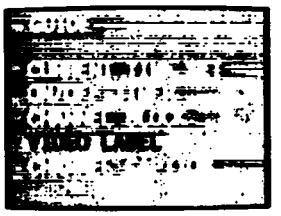
To reset the setting
Display the "CHANNEL BLOCK" page and repeat the steps from the beginning.

Labeling Each Video Input Mode

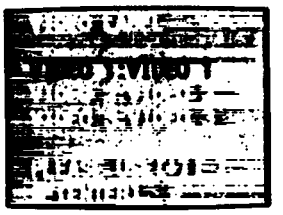
Each video input mode can be labeled as VTR, S VIDEO, or LD so that you can easily identify what equipment is connected to which input terminal.
When the label is entered, this TV automatically adjusts itself internally to enhance the picture quality for the labeled equipment.

Example: Label VIDEO 1 with S VIDEO, VIDEO 2 with LD, and VIDEO 3 with VTR.

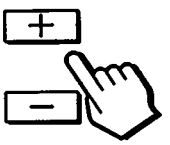
1 **Press GUIDE.**
Press repeatedly until "VIDEO LABEL" turns red.

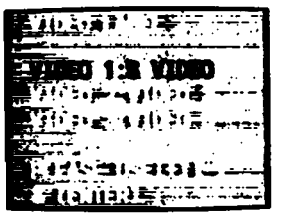


2 **Press ENTER.**

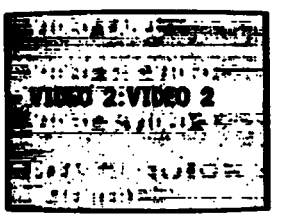


3 **Press +/– until the desired label appears.**

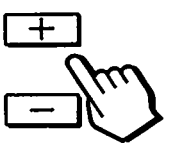


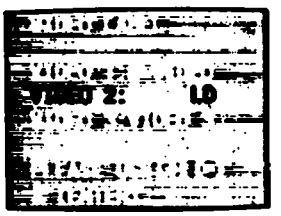


4 **Press ENTER.**

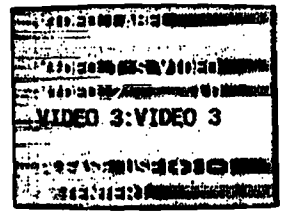


5 **Press +/– until the desired label appears.**

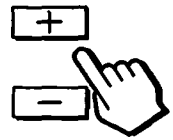


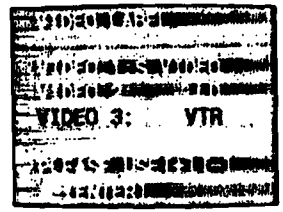


6 **Press ENTER.**

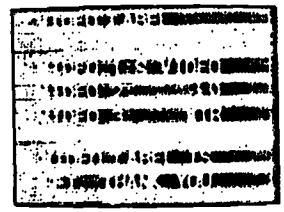


7 **Press +/– until the desired label appears.**





8 **Press ENTER.**
Now, VIDEO LABEL is set.



To restore the normal picture
Press EXIT.

For the models with only one S VIDEO IN jack
The "S VIDEO" label cannot be entered for VIDEO 2 and 3.

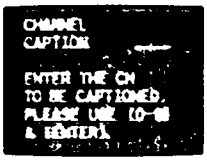
Captioning the TV Stations

You can give a station name to up to 32 program positions to identify the received channel for display on the screen together with the program position number, using up to four characters.

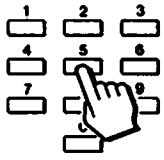
Example: To name program position 15 "ABC".

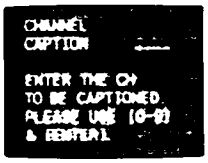
1 **Press GUIDE.**
Press repeatedly until "CHANNEL CAPTION" turns red.

2 **Press ENTER.**

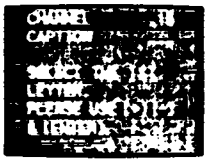


3 **Press 0–9 to set the channel to be captioned.**
(For 15, press 1, then 5.)

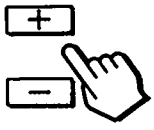


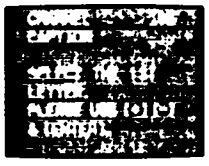


4 **Press ENTER.**
If the caption is already set, the letters/numbers will appear.

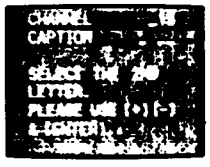


5 **Press +/– until the desired letter or number appears.**
You can leave the underline to make a column blank.





6 **Press ENTER.**



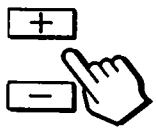
To restore the normal picture
Press EXIT.

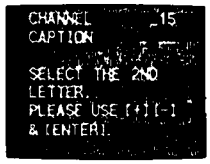
To clear the setting
Display the "CHANNEL CAPTION" page and press RESET, then EXIT.

To reset the setting
Display the "CHANNEL CAPTION" page and press RESET, then repeat steps 3 to 12.

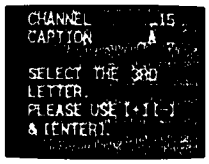
Note
When the memory is full, the indication "MEMORY FULL. PLEASE REFER TO MANUAL" will appear.
In this case, clear the unnecessary setting.

7 **Press +/– until the desired letter or number appears.**

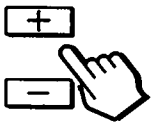


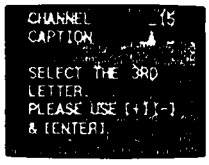


8 **Press ENTER.**

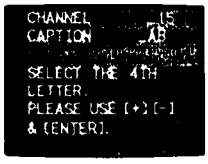


9 **Press +/– until the desired letter or number appears.**

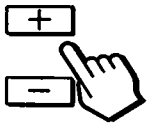


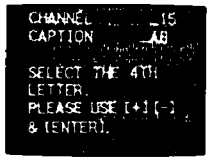


10 **Press ENTER.**

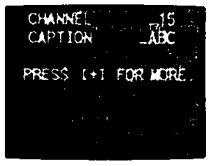


11 **Press +/– until the desired letter or number appears.**



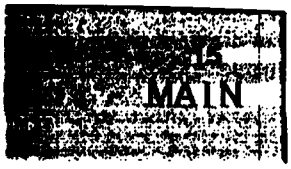


12 **Press ENTER.**
Now the CHANNEL CAPTION is set. If you want to name more stations, press [+] and repeat steps 3 to 12.

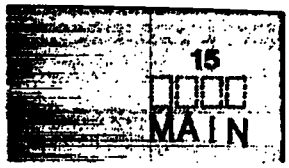


Four blank spaces can be memorized as one caption.
To check if the blanks are captioned, press DISPLAY and check the channel display as follows:

No caption



Blank caption



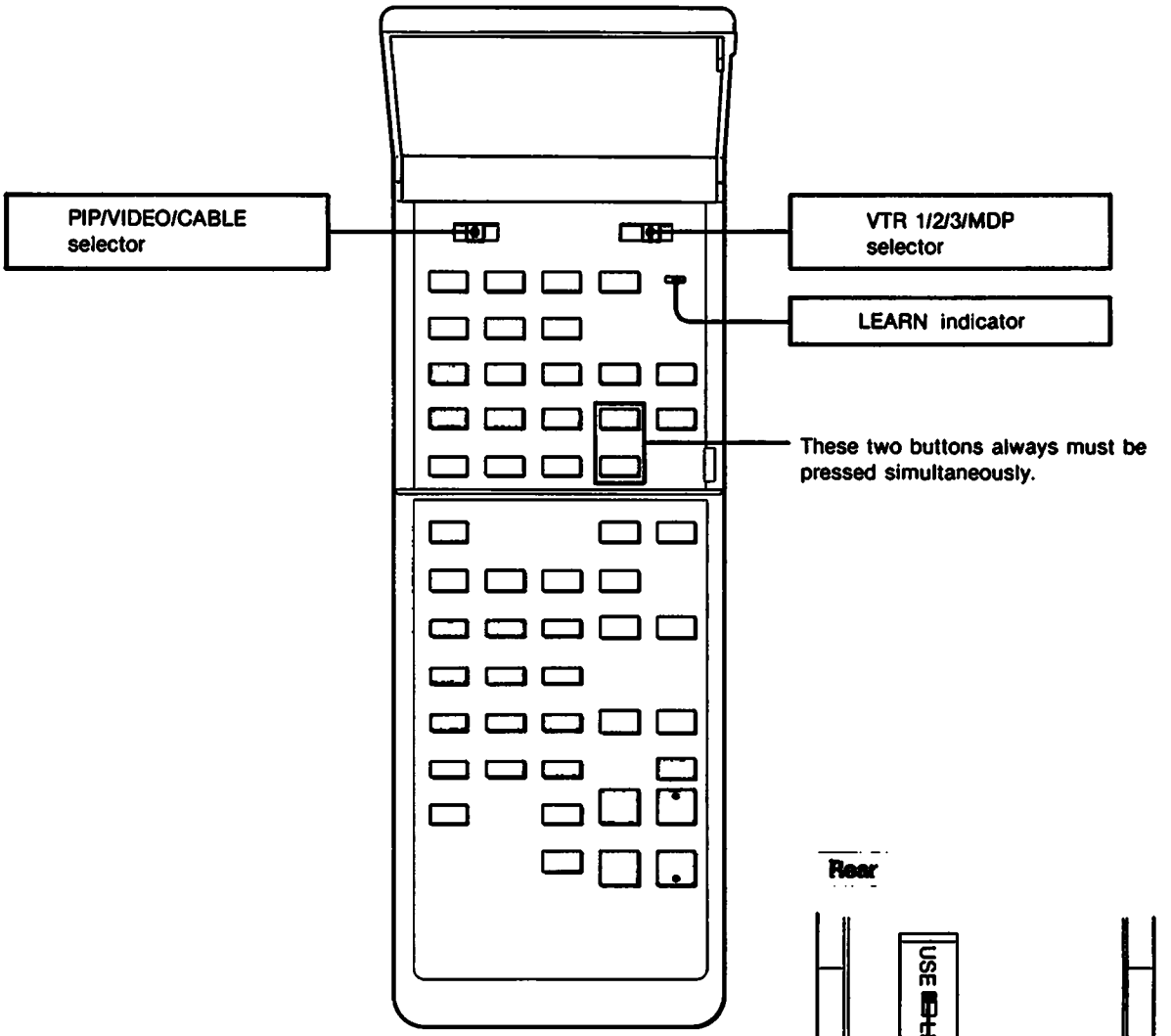
Using the Programmable Remote Commander

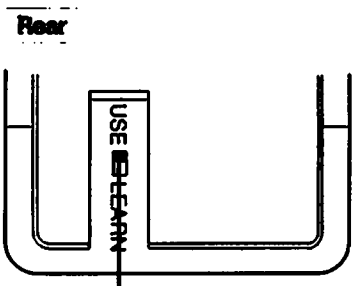
The supplied RM-761A/762A/786 Remote Commander allows you to operate other Sony video equipment having an infrared remote control detector. Furthermore, it can "read" and "store" the functions of another Remote Commanders made by Sony and other manufacturers which use an infrared beam. Thanks to this "learning" ability, you can operate your home audio and video equipment with only one Remote Commander.

Parts Used for Learning Function

Programmable area

The buttons which are capable of learning functions are shaded in ▭ .



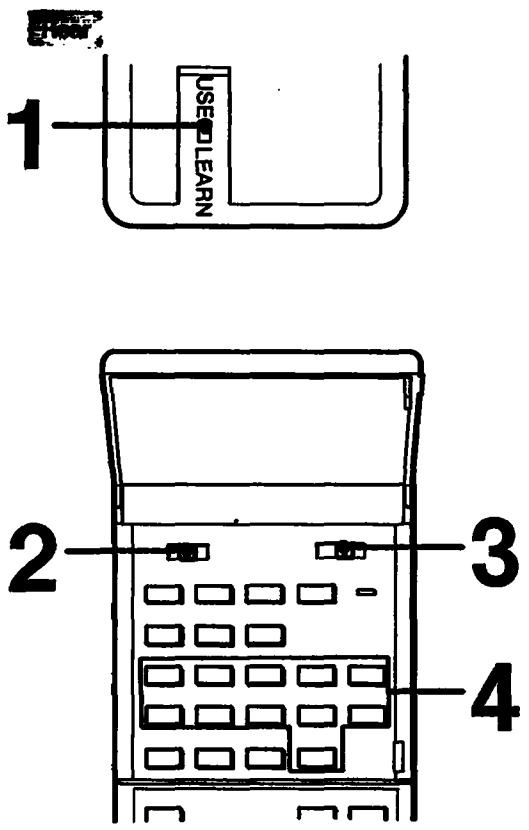


USE/LEARN selector

Normally, set to USE.
When having the Remote Commander memorize the functions, set to LEARN.

Operating Sony Video Equipment

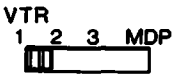
The supplied Remote Commander allows you to operate Sony video cassette recorders (including Beta, 8mm, VHS), and video disc players (including multi disc player). For operating video equipment manufactured by Sony, "learning" is unnecessary.



1 **Set the USE/LEARN selector on the rear to USE.**

2 **Set the PIP/VIDEO/CABLE selector to VIDEO.**

3 **Set the VTR 1/2/3/MDP selector according to the desired video equipment.**



Beta, ED Beta VCR	VTR 1
8mm VCR	VTR 2
VHS VCR	VTR 3
Video disc player	MDP

4 **Use the buttons in this area to operate video equipment.**

Operating a Video Cassette Recorder

To record	Press ●.
To start playback	Press ▶.
To stop	Press ■.
To advance the tape rapidly	Press ▶▶.
To rewind the tape	Press ◀◀.
To freeze a picture	Press ❚❚. To resume normal playback, press again.
To view the picture at a fast speed to find a particular scene	Keep pressing ▶▶ or ◀◀ during playback. To resume normal playback, release the button.

Operating a Video Disc Player

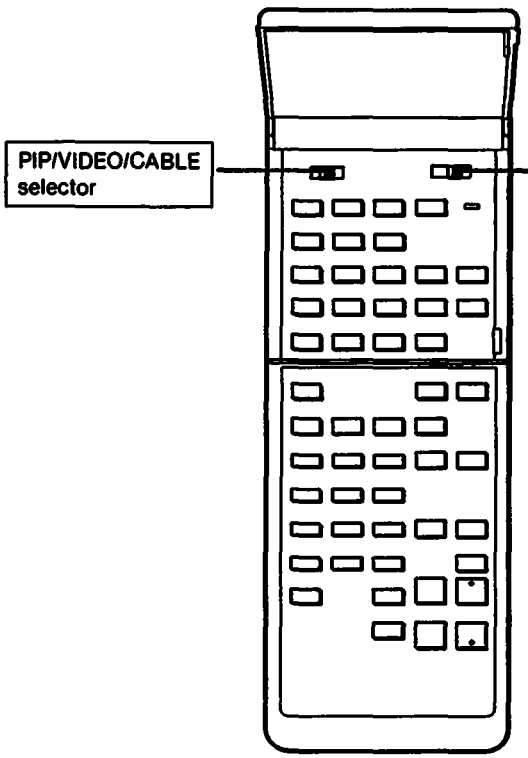
To start playback	Press ▶.
To stop	Press ■.
To freeze a picture	Press ❚❚. To resume normal playback, press again. * This function is effective only for CAV (standard-play disc). With CLV (extended-play disc), the unit will go into the standby mode if ❚❚ is pressed.
To view the picture at a fast speed to find a particular scene	Keep pressing ▶▶ or ◀◀ during playback. To resume normal playback, release the button.

- If the equipment does not have a certain function, the corresponding button on this Remote Commander is not effective.

Operating Audio and Video Equipment of Other Manufacturers, or Sony Audio Equipment

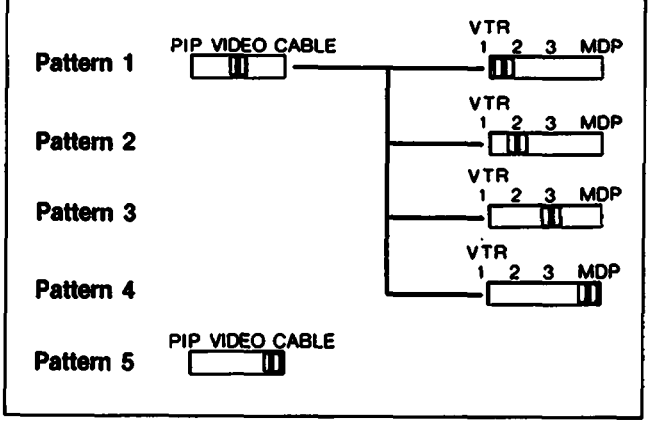
Within the programmable area, any button can memorize the function of the Remote Commander supplied with Sony audio and other manufacturer's equipment. Up to 5 functions can be memorized per button.

Programmable area



Up to five functions can be memorized on a button by setting the selectors as follows:

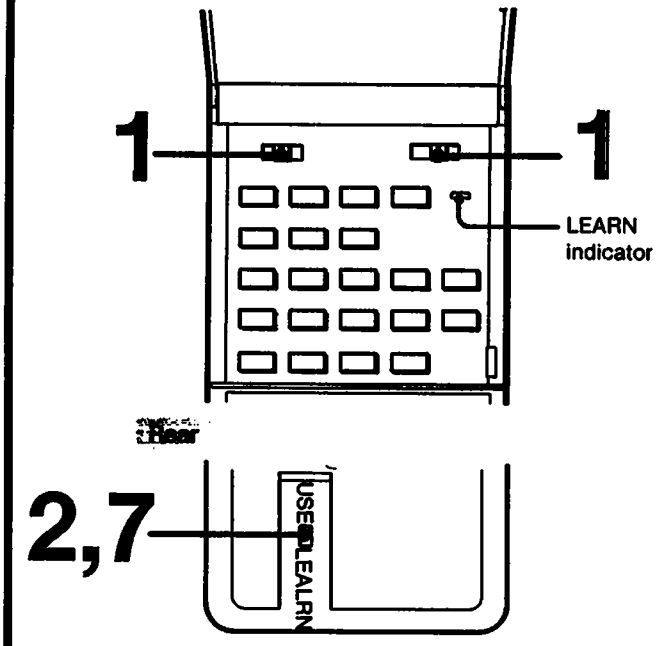
Selector Pattern



For patterns 1–4, setting both selectors is necessary.

For your convenience:
- Set the selector to the position which is not used for your Sony video equipment.
- Memorize the new function on the button which has the same kind of function. (e.g. Stop function → ■ button, playback function → ▶ button.)

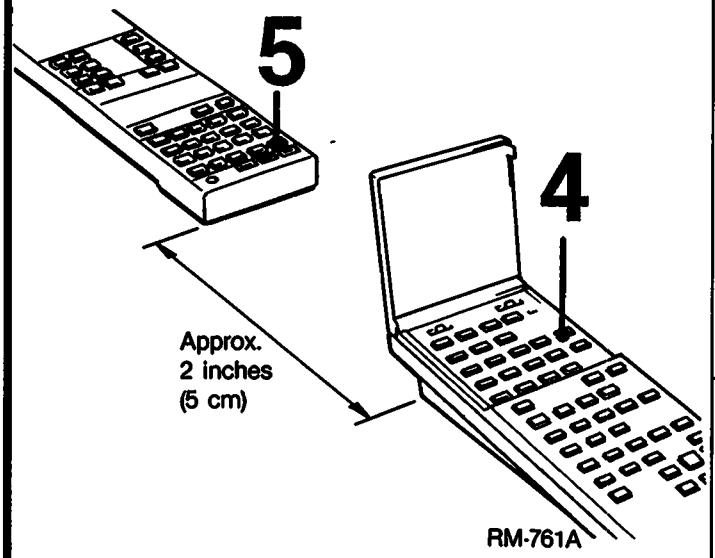
How to Use the Learning Function



1 **Set the PIP/VIDEO/CABLE selector and VTR 1/2/3/MDP selector to the appropriate position.**

2 **Set the USE/LEARN selector to LEARN.**

3 **Position this Remote Commander and the other Remote Commander head to head, approximately 2 inches (5 cm) apart.**



4 **Momentarily press the button of this Remote Commander on which a function is to be memorized.**
The LEARN indicator lights up.
(Beep).
Now it's ready for learning.

Note
If you press a button which is not programmable, the Remote Commander will beep 8 times repeatedly.

5 **Keep pressing the function button of the other Remote Commander until the LEARN indicator goes out.** A long beep is also heard which confirms that the learning was successfully completed.

6 **To continue learning other functions, repeat steps 4 to 5.**

7 **After learning is finished, set the USE/LEARN selector to USE.**

For accurate learning
Do not move the Remote Commanders during the learning process.

For your convenience
We have provided a label with a summary of instructions on how to use the Remote Commander which you can stick on the back of the Remote Commander.

Caution

When replacing the batteries, do it within approximately 30 minutes. Otherwise, the memorized functions may be erased.

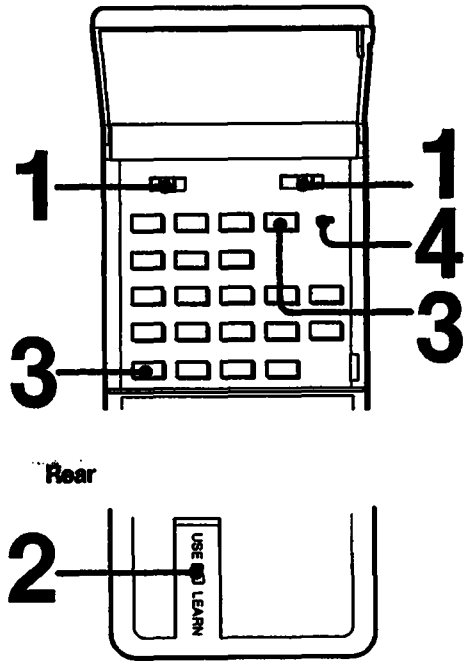
Notes

- The Remote Commander beeps repeatedly if there is inappropriate operation. Try again from Step 4.
- Be sure to confirm that the functions have been memorized as a few commanders of other manufacturers are not storable on this Remote Commander.
- Do not use the learning function for equipment other than video and audio.
- When operating equipment with learned functions, the selectors should be set to the same position as they were when the functions were memorized.
- When a new function is assigned to a button, the previous function is cleared automatically.
- When the memories are full, the LEARN indicator lights steadily if you try to memorize a new function. In such a case, set the USE/LEARN selector to USE to turn the indicator off, then clear the unnecessary functions (see page 49).

The learning function will not work in the following cases:

- There is a fluorescent lamp or equipment which emits infrared energy.
  → Move the Remote Commanders away from such infrared sources.
- The batteries are exhausted.
  → Replace all the batteries with new ones.
- There is an obstacle between the Remote Commanders, or the Remote Commanders are not positioned head to head and exactly aligned.
  → Position the Remote Commanders properly.

Clearing Memorized Functions — Clearing memorized functions under a particular selector pattern



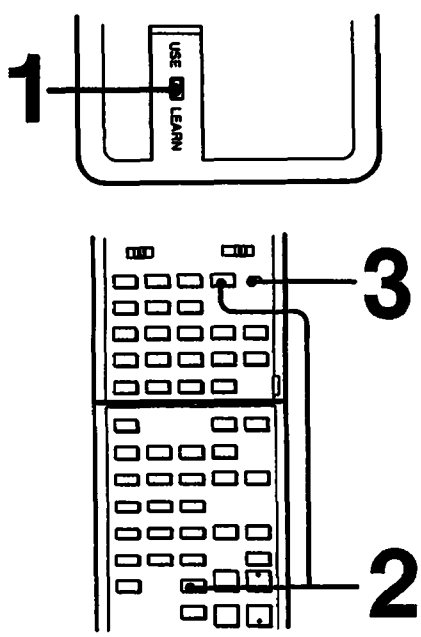
1 **Set the PIP/VIDEO/CABLE selector and the VTR 1/2/3/MDP selector to the pattern for the functions you wish to clear.**

2 **Set the USE/LEARN selector on the rear to LEARN.**

3 **Press AUDIO.**
While pressing the AUDIO button, keep pressing the ERASE button.

4 **The LEARN indicator lights up and a long beep is also heard.**
Now all the memorized functions under this selector pattern setting are cleared.

Clearing All the Memorized Functions



1 **Set the USE/LEARN selector to LEARN.**

2 **Press AUDIO.**
While pressing the AUDIO button, keep pressing the PICTURE +.

3 **The LEARN indicator lights up and a long beep is also heard.**
Now all the memorized functions under all selector patterns are cleared.

Note
If the clearing function did not work properly, the Remote Commander will beep repeatedly. Try again from step 2.

Note

Even if the memorized functions are cleared, the buttons maintain their factory set memory.

Specifications

Television system American TV standards

Channel coverage VHF: 2–13
UHF: 14–69
Cable TV: 1–125

Picture tube Microblack Trinitron tube
27-inch picture measured diagonally
28-inch picture tube measured diagonally
(KV-27XBR10/27XBR15/27XBR50/27XBR60/27XBR65)

32-inch picture measured diagonally
34-inch picture tube measured diagonally
(KV-32XBR10/32XBR15/32XBR50/32XBR65/32XBR70)

Antenna 75-ohm external antenna terminal for VHF/UHF

Input VIDEO 1, 2 and 3 IN
S VIDEO IN (4-pin mini DIN)
Y: 1 Vp-p, 75-ohms unbalanced, sync negative
C: 0.286 Vp-p (Burst signal) 75-ohms
Video (phono jacks): 1 Vp-p, 75-ohms unbalanced, sync negative
Audio (phono jacks): 500 mVrms (100% modulation)
Impedance: 47 kilohms

Output MONITOR OUTPUT
S VIDEO OUTPUT (4-pin mini DIN)
Y: 1 Vp-p, 75-ohms unbalanced, sync negative
C: 0.286 Vp-p (Burst signal) 75-ohms
Video (phono jacks): 1 Vp-p, 75-ohms unbalanced, sync negative
Audio (phono jacks): 500 mVrms (100% modulation)
Impedance: 10 kilohms
AUDIO OUTPUT (VARIABLE) (phono jacks)
More than 408 mVrms at the maximum volume setting (variable)
Impedance: 5 kilohms

Speaker output (KV-27XBR15/32XBR15)
7W × 2: 8-ohm minimum
(KV-27XBR50/32XBR50)
Main speakers
5W × 2: 8-ohm minimum
Super woofer
20W: 8-ohm minimum

Power requirements 120V AC, 60Hz

Power consumption

Model	KV-27XBR10 KV-27XBR15 KV-27XBR50 KV-27XBR60 KV-27XBR65	KV-32XBR10 KV-32XBR15 KV-32XBR50 KV-32XBR65 KV-32XBR70
Max.	225W	240W
Standby	1.5W	1.5W

Accessories supplied

Model	KV-27/32XBR15 KV-27/32XBR65	KV-27/32XBR10 KV-27XBR60 KV-32XBR70
Programmable Commander	RM-761A	RM-762A
	with 2 size AA (R6) EVEREADY batteries (1)	
Mini Commander	NO	NO
Speakers and speaker cords	NO	NO
Antenna connector (1)	YES	YES

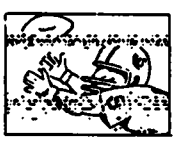
Model	KV-27/32XBR50
Programmable Commander	RM-786
	with 2 size AA (R6) Eveready batteries (1)
Mini Commander	RM-K1T
Speakers and speaker cords	Main speakers (2) Super woofer (1) Speaker cords (2) and screws (4) for main speakers
Antenna connector (1)	YES

Optional accessories
U/V mixer EAC-66
Connecting cable
VMC-810/820S
YC-15V/30V
Video rack
SU-235X (with super-woofer)
SU-335X (with super-woofer)
SU-251 (black)
SU-330 (black)

Design and specifications are subject to change without notice.

Troubleshooting

Disturbances in picture and sound can often be eliminated by checking the symptoms and following the suggestions listed below.

SYMPTOM	CHECK AND ADJUST
Poor or no picture (Screen not lit), good sound	• Adjust PICTURE. • Adjust BRIGHT. • Check antenna/cable connections.
Good picture, no sound	• Press VOLUME + on the TV or VOL + on the Remote Commander. • Press MUTING on the Remote Commander. • Check that the MTS button is set correctly. • Check that the TV/VIDEO or input select button is set correctly. • Set the SPEAKER SW (switch) to ON.
No picture (screen not lit), no sound	• Is POWER switched on? • Plug the unit into a wall outlet. • Check that the TV/VIDEO or input select button is set correctly.
No color	• Is it a color program? • Adjust COLOR.
Snow and noise only	• Is it an active or the correct channel? • Check the CABLE setting. • Check the ANT/AUX button setting. • Check antenna/cable connections.
Learning function on the commander does not work.	• Check the USE/LEARN selector setting. • Check that the Remote Commanders are positioned properly. • Check if the batteries are exhausted. • If there is fluorescent lamp near by, move the Remote Commanders away from it.
 **Dotted lines or stripes**	This is often caused by local interference. (e.g. cars, neon signs, hairdryers etc.) Adjust the antenna for minimum interference.
Double images or ghosts	Reflections from nearby mountains or buildings often cause this problem. A highly directional outdoor antenna or a CATV cable may improve the picture.
Try another channel. It could be station trouble.	

If the problem persists, contact your nearest service facility.

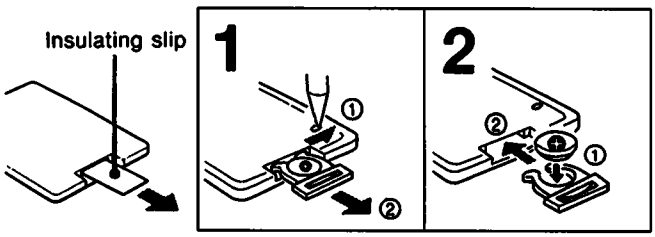
NOTICE

Please note the following information regarding the supplied Programmable Remote Commander:

- Memory capacity of the supplied Commander may vary depending on the remote codes used by the manufacturer of the other commander. Although you can select 5 patterns, the total memory capacity depends on the manufacturer.
- The learning function will not work properly in the following cases:
  -- when the other commander is in a distant location or in a wrong position.
  -- when the batteries of the commanders are exhausted.
  -- when the commander is placed near equipment that emits infrared rays.

CORRECTION (for KV-32XBR50 and KV-27XBR50 only)

Please substitute the following information for the section "How to replace the battery" on page 9 of the Operating Instructions.



How to replace the battery

1 Insert a thin instrument into the hole, and while pressing it in the direction of the arrow (①), pull out the battery case (②).

2 Insert a Sony CR2025 battery with the flat surface (positive side) upward.

Replace the battery with a Sony CR2025 lithium battery. Use of another battery may present a risk of fire or explosion.